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**Datasheet for the decision  
of 22 November 2012**

**Case Number:** T 1235/10 - 3.4.03

**Application Number:** 08150792.3

**Publication Number:** 1918886

**IPC:** G07C 9/00, G07F 7/10

**Language of the proceedings:** EN

**Title of invention:**

Identity card, information carrier and housing designed for  
its application

**Applicant:**

Chiptec International Ltd.

**Headword:**

-

**Relevant legal provisions:**

EPC Art. 76(1), 123(2)

**Relevant legal provisions (EPC 1973):**

EPC Art. 54(1)

**Keyword:**

"Novelty (no)"

**Decisions cited:**

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**Catchword:**

-



Case Number: T 1235/10 - 3.4.03

**D E C I S I O N**  
of the Technical Board of Appeal 3.4.03  
of 22 November 2012

**Appellant:** Chiptec International Ltd.  
(Applicant) Maduro Plaza Building  
Dokweg  
Willemstad  
Curaçao (AN)

**Representative:** Jilderda, Anne Ayolt  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 8 January 2010  
refusing European patent application  
No. 08150792.3 pursuant to Article 97(2) EPC.

**Composition of the Board:**

**Chairman:** G. Eliasson  
**Members:** R. Q. Bekkering  
P. Mühlens

## Summary of Facts and Submissions

This is an appeal against the refusal of divisional application 08 150 792 *inter alia* for lack of novelty, Article 54(1) EPC 1973, over document

D16: US 5 144 680 A.

- I. At oral proceedings before the board, the appellant applicant requested that the decision under appeal be set aside and a patent granted on the basis of the following:

Claims 1 to 11 of the main request filed with the statement setting out the grounds of appeal dated 18 May 2010.

All other requests on file were withdrawn.

- II. Claim 1 reads as follows:

*"A portable information carrier device provided with processing circuitry and with a memory to store personal user data, comprising physical characteristics data of the user, in which said processing circuitry is set to compare, during operation, stored physical characteristics data of the user with physical characteristics data which has been captured onsite **characterized** in that said information carrier stores physical characteristics parameter information of the user, in that said information carrier device comprises processing circuitry which is set to compare said stored physical characteristics parameter information with corresponding physical characteristics parameter*

*information elicited from said captured physical characteristics data and to provide a result indicating if said stored physical characteristics parameter information matches such captured physical characteristics parameter information."*

Claim 8 is directed at a corresponding method for authorization of a user.

III. Reference is also made to the following documents submitted by the appellant:

Exhibit 1: Bibliographic data of Stan Z. Li, "*Encyclopedia of Biometrics*", 2009, Springer Science+Business Media

Exhibit 2: Jucheng Yang et al. "*State of the Art in Biometrics*", 2011, Intech, Croatia, pages 85 to 90.

IV. The appellant submitted in substance the following arguments:

It was clear from the application as originally filed that physical characteristics parameter information such as the eye-to-eye distance of a user was elicited from captured physical characteristics data, in particular the picture of the user. Moreover, it was clear that this was done by the processing circuitry of the portable information carrier device, as the gist of the application was that no advanced equipment would be available onsite. Accordingly, the amendments did not introduce undisclosed subject-matter.

Moreover, document D16 disclosed storing and comparing information obtained by image data compression of the picture of the user rather than physical characteristics parameter information elicited from captured physical characteristics data, such as a picture, of the user. Accordingly, the subject-matter of claim 1 was new over document D16.

### **Reasons for the Decision**

1. The appeal is admissible.
2. *Amendments*
  - 2.1 Claim 1 is based on the description as originally filed, in particular page 1, lines 3 to 6, page 2, lines 7 to 10, page 2, line 19 to page 3, line 5, page 5, line 4 to page 6, line 6, page 7, lines 1 to 6 and page 8, line 14 to page 10, line 12, as well as figures 1 and 2.
  - 2.2 In particular, according to the description  
"A comparison of physical characteristics which are registered on site and stored in the information carrier of the identity card can be carried out in a fully electronic and automatic manner. In view of this a special embodiment of the identity card according to the invention is characterised in that the information carrier includes a central processing unit which has been provided with means for electric data transfer with a terminal unit of an identification system, and in that the central processing unit, which is fed with an effective programming code from the memory, is capable of comparing the stored external

characteristics of the user with the external characteristics of the user registered on site. This type of identity card itself contains the processing unit required for the comparison to be carried out, and arithmetical ability, so that the identification system does not have to provide for this" (page 5, lines 4 to 14).

Moreover, according to the description, "*In order to avoid error messages as a result of external changes of the user as well as to enhance the processing speed of the comparison referred to above, a preferred embodiment of the identity card according to the present invention is characterised in that the personal data comprise the user's physical characteristics in parameters. Storage in parameters does not in the first place involve a picture of the user, but rather characteristic features like e.g. the eye to eye distance, the angles enclosed between eyes and nose or mouth, etc. Obviously, these external parameters of the user are less subject to changes than e.g. wearing spectacles, beard and hair growth or the presence of make up, enabling a more reliable comparison*" (page 5, lines 23 to 31). Furthermore, according to the description "*The personal data in the card's memory 7 comprise various characteristic external features in parameters, particularly concerning the user's external features 6, in order to minimise the influence of cosmetic changes in the user's external features 6 and to enhance the processing speed. These features may include the eye to eye distance, the enclosed (tri)angle between eyes on the one hand, and nose, mouth or chin on the other hand, the relative position of the ears and the like. Characteristic features like*

*these are not or hardly influenced by the use of make up, changing beard or hair growth, glasses and other cosmetic external changes which often considerably hinder a conventional identification" (page 10, lines 4 to 12).*

It is considered to follow from the above that in case of "user's physical characteristics in parameters" or "characteristic external features in parameters", referred to as "physical characteristics parameter information" in claim 1, the processing circuitry is set to compare stored physical characteristics parameter information with corresponding physical characteristics parameter information captured onsite, as per claim 1.

- 2.3 It is noted that the application does not explicitly disclose that this "physical characteristics parameter information" is "elicited" from captured physical characteristics data, as defined in claim 1, and that the processing circuitry on the portable information carrier device is capable hereof as specified in claim 2.

However, according to the description, "The identification system will then only comprise registration means in order to incorporate specific physical characteristics of a user of the identity card, which registration means are linked up to the above-mentioned terminal unit from which the recorded data can be read by the processing unit of the identity card and subsequently, can be compared with the stored data in the identity card itself. This does not only simplify the infrastructure required at the check point

*location, but is also beneficial to the processing speed if various checks which otherwise possibly were to be managed by one processing unit only, are now executed in a parallel manner" (page 5, lines 14 to 21).*

Concerning the onsite registration means, according to the description "*In order to identify a person 6, this person's picture is recorded with a camera 3 and this person's voice is recorded with a microphone 4. Moreover, a fingerprint is taken electronically by means of the sensor 9 and then digitised. The analogue signal which is emitted from microphone 4, is digitised and analysed by computer 1, after which the digital voice data are sent to terminal unit 5. The picture registered by the camera, whether or not processed, is sent by the central computer 1 to terminal 5 in a similar fashion" (page 8, lines 23 to 29 and figure 2).*

Furthermore, as indicated in the description "*The information carrier 7 is manually entered into the slot of the terminal unit after which the data from the computer 1 are transferred to the card 7. These data are processed in the card by means of the integral circuit and compared to the stored personal characteristics. To this end, the integral circuit comprises a central processing unit which is activated by an appropriate program code which is loaded onto the card from the memory. In addition to this, the circuit comprises reading equipment in order to read the personal data stored in the memory of the card. Thus, card 7 comprises all means for fully executing the actual identification on the card itself" (page 9, lines 11 to 19).*



As in substance argued by the appellant, it is clear from the above that the onsite registration means are kept simple, essentially limited to a eg a camera for registering a picture of the user, and thus incapable of deriving or "eliciting" any physical characteristics parameter information (such as eg the eye-to-eye distance) from the captured physical characteristics data (eg the user's picture). In fact, it is clearly the gist of the application to provide all means for fully executing the actual identification on the card itself. Accordingly, it would be implicit for a skilled reader from the application documents that the physical characteristics parameter information is "elicited" from the user's physical characteristics data captured onsite by the processing circuitry of the portable information carrier device.

2.4 Accordingly, claim 1 as amended complies with Article 123(2) EPC.

Claim 1 as amended also complies with Article 76(1) EPC for the same reasons above, as the description of the earlier application is identical to that of the present divisional application.

3. *Novelty*

3.1 Document D16 discloses an individual identification recognition system in which a fingerprint is used. A first embodiment is shown in figure 1. In particular, *"In figure 1, the reference numeral 20 designates an IC card storing the fingerprint of the card possessor as individual identification information. That is, the characteristics of the depth and interval of the*

*fingerprint are registered in the card 20. The reference numeral 30 designates a card reader for reading out the information stored in the IC card 20 which is inserted thereinto. In the card reader 30, the reference numeral 30a designates a CCD camera or an ITV camera for reading the fingerprint from the user. The numeral 30b designates a multi-value coding section for executing a multi-value coding upon the information read by the camera 30a. The numeral 30c designates a characteristic extraction section for extracting characteristics such as the depth and the interval of the fingerprint read from the camera 30a from the output of the multi-value coding section 30b. The numeral 30d designates a comparison section for comparing the output of the characteristic extraction section 30c with the information read out from the IC card 20. As apparent from the above the characteristic extraction section 30c and the comparison section 30d constitute a judging means 30e for judging the status of the card possessor, that is, whether the possessor of the card 20 is an authorized possessor or not" (column 2, line 33 to column 3, line 5).*

Particularly relevant to the subject-matter of claim 1 is the embodiment shown in figure 3, which is a modification of the above first embodiment and more readily understood in the light of the above description of the first embodiment. In this embodiment, the characteristic extraction function and the comparison function are contained in the IC card 20. As indicated, "The reference numeral 20d designates a judging means comprising a characteristic extraction section 20a and a comparison section 20b, judging means 20d being provided in the IC card 20. The card reader

30 comprises only a CCD camera or ITV camera 30a and a multi-value coding section 30b. Herein, the numeral 20c designates a memory storing the fingerprint code. In this embodiment, not only the fingerprint 1 but also a characteristic extraction program 20a' and a comparison program 20b' are contained in the IC card 20 as shown in FIG. 4, and the respective functions of the characteristic extraction section 20a and the comparison section 20b in the IC card 20 are realized by the respective programs 20a' and 20b'. Both programs 20a' and 20b' are stored with the use of the memory capacity exceeding that required for the fingerprint code. The operation of this embodiment is substantially the same as that of the first embodiment. In addition thereto, there is no necessity of providing the characteristic extraction function and the comparison function at the card reader 30, thereby making the card reader 30 miniaturized and low cost thereby to realize a portable fingerprint comparison system" (column 3, line 65 to column 4, line 24).

Accordingly, as is apparent from the above, document D16 discloses, in the terminology of claim 1, a portable information carrier device provided with processing circuitry and with a memory to store personal user data, comprising physical characteristics data of the user, in which said processing circuitry is set to compare, during operation, stored physical characteristics data of the user with physical characteristics data which has been captured onsite, in accordance with the pre-characterising portion of claim 1.

3.2 The appellant essentially argued that the claimed device differed from D16 in that the claimed device provided physical characteristics parameter information elicited from captured physical characteristics data, whereas D16 merely provided a finger print image data compression. In the claimed device the physical characteristics parameter information was compared with stored physical characteristics parameter information, whereas in D16 the compressed finger print image data was compared with stored compressed finger print image data (see also Exhibit A on file).

The appellant noted that in document D16, in addition to what is disclosed in the passages above, the operation of the registration of the fingerprint information into the IC card is described as follows: *"The fingerprint of a particular finger is picked up by a camera as an image, and the image information of the fingerprint 1 is converted into an electric signal by a light-electricity conversion. A fingerprint may be alternately directly picked up by a CCD camera or an ITV camera 10. A characteristic extraction is executed on this fingerprint by a known data compressing method, and it is multi-value coded with the use of a gradation code of 6 to 8 bits for multi-value coding. Thus, the fingerprint pattern is converted into an electric signal, and the pattern code is stored in the IC card 20. Although a memory capacity of about 64K bytes is required for storing a raw fingerprint pattern, the required memory capacity can be reduced to about 1K bytes when only characteristics such as the depth and interval of the fingerprint are stored"* (column 3, lines 21 to 39; see also column 4, lines 25 to 45).

According to the appellant, the known data compression method, referred to as "*characteristic extraction*", in D16 included:

- image data capture of a stereoscopic configuration, formed by rotating the finger on a camera so that it is one dimensional;
- providing a gradation code with 6-8 bits for the captured image; and
- compressing the grey-scaled gradation image with a depth and interval method.

3.3 However, the above understanding of "*characteristic extraction*" of the appellant is not evident from D16 and it is unclear what a "*depth and interval method*" would be.

In particular, it is noted that the appellant's argument above hinges on the assumption that statement in D16 that "*A characteristic extraction is executed on this fingerprint by a known data compressing method, and it is multi-value coded with the use of a gradation code of 6 to 8 bits for multi-value coding*" implies an image data compression (column 3, lines 29 to 32; column 4, lines 32 to 39).

There is, however, no mention in D16 of image compression, much less of one "*with a depth and interval method*", or of a comparison between compressed image data with stored compressed image data.

The reference to the "*known data compressing method*" in the above statement in D16 is rather considered to refer to the fact that the characteristics extraction yields a reduction in the amount of data to be stored,

which, as indicated, is reduced from about 64K bytes for the raw fingerprint data to about 1K bytes when only the characteristics such as the depth and interval of the fingerprint are stored.

Moreover, according to D16, in operation "*When a card possessor inserts the IC card 20 into the card reader 30, and places a particular finger on a window for reading a fingerprint, the fingerprint of the card possessor (which is information for comparison) is picked up. The picked up signal is coded into a gradation code signal by the multi-value coding section 30b, and a characteristic extraction is executed on this signal by the characteristic extraction section 30c to be output to the comparison section 30d. In the comparison section 30d the fingerprint code read out from the IC card 20 and the extracted characteristic information are compared, a judgement is made whether the possessor of the card is the authorized card possessor*" (column 3, lines 45 to 58). To a skilled reader, the above leaves no doubt that characteristics such as the depth and interval of the fingerprint obtained by characteristics extraction on gray-scale image data are compared.

The appellant also argued that 1 Kbyte of stored data as indicated was excessive for data extracted from the fingerprint, thereby further suggesting that the stored and compared data was rather a compressed image.

It is, however, noted that a conventional minutia template of a fingerprint, ie a list of fingerprint minutiae with accompanying attributes such as minutia type and location, typically requires about 1 Kbyte of

data. Accordingly, the board is not convinced that 1 Kbyte for extracted characteristics such as the depth and interval of the fingerprint in the present case is indeed excessive.

Finally, the appellant filed two further documents at the oral proceedings (Exhibits 1 and 2) in support of his argument.

In particular, it was argued that since even in the vastest encyclopaedia of biometrics indentified in the first document (Exhibit 1) there was no mention of any extraction of characteristics such as the depth and interval of a fingerprint, the skilled person would rather understand D16 to refer to an image data compression and comparison.

Moreover, the second document (Exhibit 2), an excerpt from a textbook on biometrics, showed that fingerprint recognition by comparison of the subject's fingerprint image and the enrolled fingerprint image was known to the skilled person.

However, the fact that the above encyclopaedia does not address this procedure and that other procedures are known cannot alter the fact that document D16 is clear as to the procedure to be followed: characteristics extraction is executed on the fingerprint whereby characteristics such as the depth and interval of the fingerprint are obtained and compared.

Incidentally, it is noted the appellant merely provided the bibliographic data with Exhibit 1, so that the

encyclopaedia itself could not actually be examined to verify the appellant's contention.

3.4 Since the information relating to characteristics such as the depth and interval of a fingerprint of D16 is "*physical characteristics parameter information*" of the user within the meaning of claim 1, the information carrier of D16 stores physical characteristics parameter information of the user, as specified in claim 1. Moreover, the information carrier device of D16 comprises processing circuitry, which is set to compare the stored physical characteristics parameter information with corresponding physical characteristics parameter information elicited from the captured physical characteristics data and to provide a result indicating if the stored physical characteristics parameter information matches such captured physical characteristics parameter information, as per claim 1.

3.5 Accordingly, the subject-matter of claim 1 is not new over document D16 (Article 54(1) EPC 1973).



**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

Registrar

Chair

S. Sánchez Chiquero

G. Eliasson