

WHAT IS CLAIMED IS:

1. A time information based authentication method, comprising:

obtaining a time information from an external device;

receiving a data from a memory unit of a security chip; and

- 5 generating an authentication code according to the data and the time information;

~~2. The time information based authentication method according to claim 1,~~

wherein the step of obtaining the time information from the external device comprises:

- 10 receiving a current time and a current time zone recorded in the external device;

calibrating the current time zone to get a correct time zone by obtaining a location information; and

- 15 generating an UTC time according the correct time zone and the current time.

~~32.~~ The time information based authentication method according to claim ~~21~~, wherein the location information is a base station time zone, and the base station time zone is corresponding to a place which a base station is located

in.

43. The time information based authentication method according to claim 1, wherein the step of obtaining the time information from the external device comprises:

5 providing a user interface; and

receiving the time information from the user interface.

54. The time information based authentication method according to claim 1, wherein the step of obtaining the time information from the external device comprises:

10 receiving the time information from a wireless module of the external device.

65. The time information based authentication method according to claim 1, wherein the external device is a mobile device.

76. An integrated circuit having a time information based authentication function, the integrated circuit comprising:

a security chip, comprising:

a time information obtaining unit for obtaining a time information from an external device;

a memory unit for storing a data; and

an authentication unit for receiving the data from the memory unit,
and generating an authentication code according to the data and the time
information;

5 wherein the time information obtaining unit receives a current time
and a current time zone recorded in the external device, calibrates the current
time zone to get a correct time zone by obtaining a location information, and
generates an UTC time according to the correct time zone and the current
time.

10 87. The integrated circuit according to claim 76, wherein the integrated
circuit is an integrated circuit film, the integrated circuit further comprises:

a circuit board having a first surface and a second surface opposite to
the first surface;

15 a plurality of first pads located on the first surface for connecting to the
external device; and

a plurality of second pads located on the second surface for connecting to
a SIM card;

wherein the security chip is mounted on the circuit board for
communicating with the external device through the first pads, and

communicating with the SIM card through the second pads, and the data includes a key, personal information or secret data.

98. The integrated circuit according to claim 76, wherein the integrated circuit is a Subscriber Identity Module (SIM) card, and the data includes a key, a phone number, an address book, text messages and other secret data.

109. The integrated circuit according to claim 76, wherein the integrated circuit is a Secure Digital (SD) card, and the data includes a key, personal information or secret data.

1110. The integrated circuit according to claim 76, wherein the external device is a mobile device.

~~12. The integrated circuit according to claim 7, wherein the time information obtaining unit receives a current time and a current time zone recorded in the external device, calibrates the current time zone to get a correct time zone by obtaining a location information, and generates an UTC time according to the correct time zone and the current time.~~

1311. The integrated circuit according to claim 126, wherein the location information is a base station time zone, and the base station time zone is corresponding to a place which a base station is located in.

1412. The integrated circuit according to claim 76, wherein the time information obtaining unit is connected to a user interface of the external

device, and receives the time information from the user interface.

1513. The integrated circuit according to claim 76, wherein the time information obtaining unit is connected to a wireless module of the external device, and receives the time information from the wireless module.

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