

WHAT IS CLAIMED IS:

1. A time information based authentication method, comprising:

communicating with an external device through a plurality of first pads of an
integrated circuit to obtain~~ing~~ a time information from ~~the~~~~an~~ external device;

communicating with a SIM card through a plurality of second pads of the
integrated circuit to ~~receiving~~ receive a data from a memory unit of ~~a security chip~~the
SIM card, wherein the data includes a key, personal information or secret data; and

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

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

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

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

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

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

providing a user interface; and

receiving the time information from the user interface.

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

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

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

6. An integrated circuit having a time information based authentication function, the integrated circuit is an integrated circuit film, the integrated circuit comprising:

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

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

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

a security chip, comprising:

a time information obtaining unit for obtaining a time information from ~~the~~ external device;

~~a memory unit for storing a data;~~ and

an authentication unit for receiving ~~a~~the data from ~~a~~the memory unit of the SIM card, and generating an authentication code according to the data and the time information;

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;

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.

~~7.—The integrated circuit according to claim 6, 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;~~

~~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.~~

78. The integrated circuit according to claim 6, 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.

~~89~~. The integrated circuit according to claim 6, wherein the integrated circuit is a Secure Digital (SD) card, and the data includes a key, personal information or secret data.

~~910~~. The integrated circuit according to claim 6, wherein the external device is a mobile device.

~~1011~~. The integrated circuit according to claim 6, 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.

~~1112~~. The integrated circuit according to claim 6, 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.

~~1213~~. The integrated circuit according to claim 6, 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.