

DEVICE AND METHOD FOR ENERGY INDUCTION TRANSMISSION USED ON AN NFC-SIM CARD

TECHNICAL FIELD

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The present application relates to the field of mobile communication technology, and particularly to a method for energy induction transmission used on an NFC-SIM card.

BACKGROUND

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Currently, due to the improvement of people's living standard, there have been a growing number of mobile phone users. In order to bring the convenience of consumption to the mobile phone user, the requirement for achieving the micro-payment function through mobile phone is also growing strongly. However, because the NFC-enabled mobile phone does not yet have been popularized, the NFC function can only be achieved through external extension. There are many ways for a mobile phone to achieve external extension of the NFC function, and because the way of embedding a 13.56 MHz antenna in a mobile phone SIM card is more convenient, the short distance communication function can be achieved by replacing with an NFC-SIM card. However, in the above mentioned way, because the position at which the NFC-SIM card is placed is different from each other in various mobile phones, the intensity of the electromagnetic shielding is different from each other, resulting that the replaced cards in part of the mobile phones can not be induced normally, thus seriously affecting the promotion of the NFC-SIM card.

SUMMARY OF THE INVENTION

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In view of this, it is necessary to direct to the problems mentioned in the background and provide a system and a method for energy induction transmission used on an NFC-SIM card which have higher stability.

30 The present application is achieved by technical solutions as follows:

A device for energy induction transmission used on an NFC-SIM card including a 13.56 MHz induction antenna, the 13.56 MHz induction antenna include a signal receiving terminal and a signal inputting terminal, and the signal inputting terminal is fixed to the NFC-SIM card.

The signal inputting terminal may adheres to a front or rear face of the NFC-SIM card.

The signal receiving terminal may be arranged between a battery and a back cover of a mobile phone.

A method for energy induction transmission used on an NFC-SIM card including:

5 providing a 13.56 MHz induction antenna, which including a signal receiving terminal and a signal inputting terminal;

 fixing the signal inputting terminal of the 13.56 MHz induction antenna to the NFC-SIM card;

10 receiving a transaction signal through the signal receiving terminal of the 13.56 MHz induction antenna;

 transmitting the signal to the NFC-SIM card through the signal inputting terminal of the 13.56 MHz induction antenna.

15 The fixation of the signal inputting terminal of the 13.56 MHz induction antenna to the NFC-SIM card may specifically includes: fixing the 13.56 MHz induction antenna to a front or rear face of the NFC-SIM card by way of adhesion.

After the step of fixing the signal inputting terminal of the 13.56 MHz induction antenna to the NFC-SIM card, the method may further includes: arranging the signal receiving terminal between a battery and a back cover of a mobile phone.

20 As compared with the prior art, the present application has following advantages: in the present application, the 13.56 MHz induction antenna is fixed to the NFC-SIM card inside the mobile phone, there is no interference with the normal use of the mobile phone by arrangement of the induction antenna between a back cover and a battery of the mobile phone due to much more thinner thickness of the induction antenna, for example 0.2 mm. At the meanwhile, the problem that some of mobile phones replaced with NFC-SIM card can not be
25 induced normally can be solved easily, and it is beneficial to promoting the application of NFC-SIM card greatly.

DRAWINGS

30 Fig. 1 is a structural schematic view of a 13.56 MHz induction antenna according to a first embodiment of the present application.

Fig. 2 is a schematic view of a combination of the 13.56 MHz induction antenna shown in Fig. 1 and an NFC-SIM card.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

As shown in Fig. 1 and Fig. 2, the present embodiment provides a device for energy induction transmission used on an NFC-SIM card, which includes a 13.56 MHz induction antenna 1, the
5 13.56 MHz induction antenna 1 includes a signal receiving terminal 11 and a signal inputting terminal 12, and the signal inputting terminal 12 is fixed to the NFC-SIM card 2.

The signal inputting terminal 12 adheres to a front face or a back face of the NFC-SIM card 2.

The signal receiving terminal 11 is arranged between a battery and a back cover of a mobile phone.

10 The present embodiment provides a method for energy induction transmission used on an NFC-SIM card, which includes:

providing a 13.56 MHz induction antenna, which including a signal receiving terminal and a signal inputting terminal;

15 fixing the signal inputting terminal of the 13.56 MHz induction antenna to the NFC-SIM card;

receiving a transaction signal through the signal receiving terminal of the 13.56 MHz induction antenna;

transmitting the signal to the NFC-SIM card through the signal inputting terminal of the 13.56 MHz induction antenna.

20 The fixation of the signal inputting terminal of the 13.56 MHz induction antenna to the NFC-SIM card specifically includes: fixing the 13.56 MHz induction antenna to a front face or a back face of the NFC-SIM card by way of adhesion.

After the step of fixing the signal inputting terminal of the 13.56 MHz induction antenna to the NFC-SIM card, the method further includes: arranging the signal receiving terminal
25 between a battery and a back cover of a mobile phone.

CLAIMS

1. A device for energy induction transmission used on an NFC-SIM card comprises a 13.56 MHz induction antenna, the 13.56 MHz induction antenna comprises a signal receiving terminal and a signal inputting terminal, and the signal inputting terminal is fixed to the NFC-SIM card.

2. The device according to claim 1, wherein the signal inputting terminal adheres to a front or a rear face of the NFC-SIM card.

3. The device according to claim 1, wherein the signal receiving terminal is arranged between a battery and a back cover of a mobile phone.

4. A method of energy induction transmission used on an NFC-SIM card comprises:

providing a 13.56 MHz induction antenna, which comprise a signal receiving terminal and a signal inputting terminal;

fixing the signal inputting terminal of the 13.56 MHz induction antenna to the NFC-SIM card;

receiving a transaction signal through the signal receiving terminal of the 13.56 MHz induction antenna;

transmitting the signal to the NFC-SIM card through the signal inputting terminal of the 13.56 MHz induction antenna.

5. The method according to claim 4, wherein the fixing of the signal inputting terminal of the 13.56 MHz induction antenna to the NFC-SIM card specifically comprises: fixing the 13.56 MHz induction antenna to a front or a rear face of the NFC-SIM card by way of adhesion.

6. The method according to claim 4, wherein after the step of fixing the signal inputting terminal of the 13.56 MHz induction antenna to the NFC-SIM card, the method further comprises: arranging the signal receiving terminal between a battery and a back cover of a mobile phone.