Claims

1. A method for manufacturing a radiofrequency chip card (1A), said method comprising the steps of:

- forming a card body (22) comprising a relay antenna (5) and an insulating cover layer on at least one main face of the card,

- arranging a module (10, 26) equipped with a radiofrequency module antenna (23), on the card body opposite the relay antenna for radiofrequency coupling;

characterized in that it comprises the following steps:

- forming a metal insert (4) in said card body, said insert extending up to the edges of the card and comprising a space (7) permeable to the radiofrequency field opening on at least one of the two main faces of the insert and comprising said relay antenna (5) inside.

2. The method according to the preceding claim, characterized in that the insert comprises or is formed of a metal plate (4) around said space (7) permeable to the radiofrequency field.

3. The method according to one of the preceding claims, characterized in that the relay antenna (5) is realized on a support substrate.

4. The method according to one of the preceding claims, characterized in that the space (7) is configured so as to form a wedge plane for the support substrate of the relay antenna within the thickness (e) of the insert.

5. The method according to one of the preceding claims, characterized in that the relay antenna (5) with its supporting substrate (25) is assembled to the insert (4) in such a way as to position the relay antenna opposite said permeable space.

6. The method according to one of the preceding claims, characterized in that said module (10) is inserted into a cavity provided in the card body.

7. The method according to one of the preceding claims, characterized in that said radiofrequency module (26) is previously assembled to the relay antenna (5) and then inserted into the space (7) with the relay antenna.

8. The method according to one of the preceding claims, characterized in that said relay antenna is configured without a capacitor plate and defines a second antenna spiral entangled in a first antenna spiral.

9. The method according to one of the preceding claims, characterized in that said relay antenna (5) has a total area of between one-third and one-quarter of the main area of the card.

10. The method according to one of the preceding claims, characterized in that said relay antenna (5) has a total area equal to three or four times the area of the antenna (23) of the module (10, 23).

11. The method according to one of the claims 1 to 8, characterized in that said relay antenna (5) has an area outside the plumb line of the module equal to 2 to 4 times the area of a module.

12. The method according to one of the preceding claims, characterized in that said plate (4) comprises a slit (11) cutting the plate through its thickness and extending from an outer periphery (9) of the plate to an inner periphery of said space (7) permeable to the radiofrequency field.

13. A radiofrequency chip card (1A) comprising:

- a card body (22) comprising a relay antenna (5) and an insulating cover layer on at least one main face of said card,

- a module (10, 26) equipped with a radiofrequency module antenna (23), arranged on the card body opposite the relay antenna for radiofrequency coupling;

characterized in that it comprises:

- a metal insert (4) of the card body extending up to the edges of the card, said insert comprising a space (7) permeable to the radiofrequency field opening on at least one of the two main faces of the insert and comprising said relay antenna (5) inside.

14. The card (1A) according to the preceding claim, characterized in that the insert comprises or is formed of a metal plate (4) around said permeable space (7).

15. The card (1A) according to one of the claims 13 or 14, characterized in that said relay antenna is configured without a capacitor plate and defines a second antenna spiral entangled in a first antenna spiral.