

CLAIMS

1. A contactless electronic device (10) including a near-field communication antenna (12) delimiting a usable magnetic field receiving area (S), a microcircuit (14) connected to antenna (12) and a magnetic shielding layer (16) arranged so as to extend at least partially under the area (S), **wherein** is included a support (18) built into a microcircuit card body (20) including an open cavity (30) on one of its faces (F2) extending at least partially below the antenna area (S) and sized so as to completely accommodate the shielding layer (16), **and wherein** the body (20) includes a detachable plate (22) within which are arranged the antenna (12) and the microcircuit (14) and within which the layer (16) extends at least partially.

2. A device (10) according to the foregoing claim, in which, the layer (16) having dimensions greater than the area (S) of the antenna, the layer (16) is arranged so as to cover the entire usable area (S) of the antenna (12).

3. A device (10) according to one or the other of the foregoing claims, in which the cavity (30) and the layer (16) extend at least through the entire plate (22).

4. A device (10) according to any one of the foregoing claims, in which the detachable plate (22) is delimited by a breakable line (24) built into the body (20) and provided to allow separation of the plate (22) from the body (20) by manual pressure alone.

5. A device (10) according to the previous claim, in which the breakable line (24) includes through incisions (26) and/or partial depth incisions (28).

5           6. A device (10) according to Claim 4 or 5, in which the breakable line (24) includes at least one incision (26, 28) passing through the entire thickness of the shielding layer (16).

10           7. A device (10) according to any one of Claims 4 through 6, in which the line (24) includes two partial-depth incisions (28), each made in one of the faces (F1, F2) of the body (20) opposite one another.

15           8. A device (10) according to any one of the foregoing claims, in which the layer (16) is made of a material consisting essentially of ferrite.

20           9. A device (10) according to any one of the foregoing claims, in which the shielding layer (16) includes, on a face (16B) oriented toward the outside of the cavity (30), an adhesive coating (34) to allow the detachable plate (22) to be attached by gluing onto a surface of a piece of equipment external to the device  
25 (10).

30           10. A device (10) according to any one of the foregoing claims, in which the shielding layer (16) is attached by gluing within the cavity (30).

          11. A device (10) according to any one of the foregoing claims, in which the card body (20) is made by lamination of a plurality of layers (20A, 20B, 20C, 20D),

of which at least one incorporates the antenna (12) and the microcircuit (14).

12. A device (10) according to any one of the  
5 foregoing claims, in which the card body (20) delimits a card with a format that complies with a predefined microcircuit card standard, such as the ID-1 format of the ISO 7816 standard for example.

10 13. A contactless electronic tag (22) including a near-field communication antenna (12) delimiting a usable magnetic field receiving area (S), a microcircuit (14) connected to the antenna (12) and a magnetic shielding layer (16) arranged so as to cover at least partially the  
15 usable area (S), **wherein** it constitutes the detachable plate (22) of an electronic device (10) according to any one of the foregoing claims.

14. A manufacturing process for a device (10)  
20 according to any one of Claims 1 through 12, **wherein** a predefined part (38) is provided in the card body (20), incorporating the antenna (12) and the microcircuit (14), the cavity (30) is arranged so that it extends at least partially within the predefined part (38) under the usable  
25 surface (S) of the antenna (12), the cavity (30) being sized so as to completely accommodate the shielding layer (16) and the predefined part (38) is pre-cut once the layer (16) is attached within the cavity (30) to constitute the detachable plate (22) of the card body (20).

**CLAIMS**

1. A contactless electronic device comprising:

5 a near-field communication antenna delimiting a usable magnetic field receiving area;

a microcircuit connected to said antenna;

a magnetic shielding layer arranged so as to extend at least partially under the usable magnetic field receiving area; and

10 a microcircuit card body including an open cavity on one face of the microcircuit card body, the cavity extending at least partially below the usable magnetic field receiving area and sized so as to completely accommodate the magnetic shielding layer,

15 wherein the microcircuit card body includes a detachable plate, the antenna and the microcircuit being arranged in the microcircuit body within an area of the detachable plate, and the magnetic shielding layer extending at least partially within the area of the detachable plate.

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2. The device according to claim 1, wherein, the magnetic shielding layer having dimensions greater than the area of the antenna, the magnetic shielding layer is arranged so as to cover the entire usable magnetic field  
25 receiving area.

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3. The device according to claim 1, wherein the cavity and the magnetic shielding layer extend at least through the entire detachable plate.

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4. The device according to claim 1, wherein the detachable plate is delimited by a breakable line built into the microcircuit card body and provided to allow separation

of the detachable plate from the microcircuit card body by manual pressure alone.

5        5. The device according to claim 4, wherein the breakable line includes through incisions and/or partial depth incisions.

10       6. The device according to claim 4, wherein the breakable line includes at least one incision passing through the entire thickness of the magnetic shielding layer.

15       7. The device according to claim 4, wherein the breakable line includes two partial-depth incisions, each made in one of the faces of the microcircuit card body opposite one another.

20       8. The device according to claim 1, wherein the magnetic shielding layer is made of a material consisting essentially of ferrite.

25       9. The device according to claim 1, wherein the magnetic shielding layer includes, on a face oriented toward the outside of the cavity, an adhesive coating to allow the detachable plate to be attached by gluing onto a surface of a piece of equipment external to the device.

30       10. The device according to claim 1, wherein the magnetic shielding layer is attached by gluing within the cavity.

11. The device according to claim 1, wherein the microcircuit card body is made by lamination of a plurality of layers, of which at least one incorporates the antenna and the microcircuit.

12. The device according to claim 1, wherein the microcircuit card body delimits a card with a format that complies with a predefined microcircuit card standard, such as the ID-1 format of the ISO 7816 standard for example.

13. The device according to claim 1, wherein said detachable plate comprises:

a contactless electronic tag comprising a near-field communication antenna delimiting a usable magnetic field receiving area;

a microcircuit connected to the antenna, and

a magnetic shielding layer arranged so as to cover at least partially the usable magnetic field receiving area.

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14. A manufacturing process for a device according to claim 1, wherein a predefined part is provided in the microcircuit card body, incorporating the antenna and the microcircuit, the cavity is arranged so that it extends at least partially within the predefined part under the usable magnetic field receiving area, the cavity being sized so as to completely accommodate the magnetic shielding layer and the predefined part is pre-cut once the magnetic shielding layer is attached within the cavity to constitute the detachable plate of the microcircuit card body.

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