

CLAIMS

1. A smart card module (1B) with an integrated-circuit chip, comprising:

- 5 - an insulating substrate (3),
 - metallisations comprising conductive tracks (25),
 made on the same single side of the substrate (12),
 forming an antenna (2) and comprising two connection
 ends (8, 9),
10 - an area (16) for coating or placing the
 radiofrequency integrated-circuit chip (4) and a device
 (14) in the form of a surface-mounted device,
 - the radiofrequency integrated-circuit chip and the
 device being arranged on the same single face of the
15 substrate without metallisations between the
 radiofrequency integrated-circuit chip and the same
 single face, and being connected to the antenna (2), by
 an electrical connection,
 wherein the metallisations (2) are on only the same
20 single side of the insulating substrate, said
 electrical connection (28, 26) being made via
 perforations (17) through the insulating substrate or
 directly on surface metallisations, and wherein the
 device has a volume which is substantially smaller than
25 or of the same magnitude as that of the radiofrequency
 integrated-circuit chip..

2. The smart card module (1B) according to claim 1,
characterised in that the antenna comprises a spiral
30 including antenna turns (25) at the periphery (33) of

the substrate, and wherein the chip (4) and the device (14) are arranged inside the spiral.

5 3. The smart card module (1B) according to claim 1 or claim 2, characterised in that it further comprises a metallised redirection terminal (21) inside the spiral, said metallised redirection terminal being connected to the antenna (2) by an electrical connection (19) in the sectioned or un-short-circuited state.

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4. The smart card module (1B) according to any one of the preceding claims, characterised in that said sectioned or un-short-circuited state is the result of one operation among a mechanical or laser ablation, an isolated perforation of the substrate and a link connecting said metallised redirection terminal and said antenna, a mechanical abrasion or a punching.

15 5. The smart card module (1B) according to any one of the preceding claims, characterised in that the chip (4) and the device (14) are connected to a single pair of interconnection terminals (8, 21) arranged inside the spiral.

20 6. The smart card module (1B) according to claim 5, characterised in that it further includes an outer terminal of the antenna brought close to one of the interconnection terminals via a deflection of the turns, said deflection extending from the periphery of the substrate to the inside of the spiral.

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7. The smart card module (1B) according to any one of the preceding claims, characterised in that the device (14) is a capacitor.

5 8. The smart card module (1B) according to any one of the preceding claims, characterised in that the device (14) and the radiofrequency integrated-circuit chip (4) are coated with the same single coating material (6).

10 9. A smart card including the smart card module according to any one of the preceding claims.

10. The smart card according to claim 9, comprising a body with a cavity opening onto the surface and said
15 module inset and secured in the cavity.

11. The smart card according to claim 9 or claim 10, wherein the same single face of the substrate is on the same single side of the substrate.

20 12. The smart card according to claim 9 or claim 10, wherein the same single face of the substrate is not on the same single side of the substrate.

25 13. A module with an integrated-circuit chip, comprising:
- an insulating substrate,
- metallisations comprising conductive tracks, made on the same single side of the substrate, forming an
30 antenna and comprising two connection ends,

- an area for coating or placing the radiofrequency integrated-circuit chip and a device in the form of a surface-mounted device,
 - the radiofrequency integrated-circuit chip and the device being arranged on the same single face of the substrate, without metallisations between the radio-frequency integrated-circuit chip and the same single face, and being connected to the antenna, by an electrical connection,
- wherein the metallisations are on only the same single side of the insulating substrate, said electrical connection being made via perforations through the insulating substrate or directly on surface metallisations.
14. A product comprising a portable body supporting the module of Claim 13.
15. The product of Claim 14, wherein the portable body is a garment.
16. The product of Claim 14, wherein the portable body is a bracelet.
- ~~19~~17. The product of Claim 14, wherein the portable body is a watch.
18. The product of Claim 14, wherein the portable body is a belt.

19. The product of Claim 14, wherein the portable body is a key fob.