

CLAIMS

1. A method for manufacturing an intermediate electronic device (SM) intended to be covered with a cover sheet or layer, said method comprising a step of forming a carrier body (31, 32) comprising:

- a cavity (C1, C2) formed in the carrier body,
- an electrical circuit (32) comprising at least one electrical interconnection area (10, 11) inside the cavity,
- an electronic module (11, 12) comprising at least one connection pad connecting said interconnection area, disposed in the cavity,
- a space or gap (I1, I2) existing at the interface between the module and the carrier body, oriented substantially perpendicular to a principal surface of the carrier body, emerging on the surface of the carrier body and being intended to be covered with a cover sheet or layer,

characterised in that in that a flexible or elastic material is arranged in the device so as to at least partially fill or cover said space or gap between the module and the carrier body.

2. A method according to the preceding claim, characterised in that the flexible material comprises a conductive connection material arranged and compressed

in the device so as to connect the module to the circuit and to flow into said space or gap in order to at least partially fill it.

3. A method according to the preceding claim, characterised in that the conductive material is of the anisotropic type.

4. A method according to the preceding claim, characterised in that the anisotropic material surrounds the module.

5. A method according to the preceding claim, characterised in that it comprises a patch (35) made from flexible or elastic material covering the interface.

6. A method according to the preceding claim, characterised in that it comprises at least one cover sheet (38) on top of or below said patch or the gap.

7. An intermediate electronic device (SM) intended to be covered by a cover sheet or layer, comprising:

- a carrier body (31, 32)
- a cavity (C1, C2) formed in the carrier body,
- an electrical circuit (32) comprising at least one electrical interconnection area (Z1, Z2) inside the cavity,

- an electronic module (17) comprising at least one connection pad (10, 11) connecting said interconnection area, disposed in the cavity,

- a space or gap (I1, I2) existing at the interface between the module and the carrier body, oriented substantially perpendicular to a principal surface of the carrier body and emerging on the surface of the carrier body, an intermediate electronic device (SM), emerging on the surface of the carrier body and being intended to be covered with a cover sheet or layer,

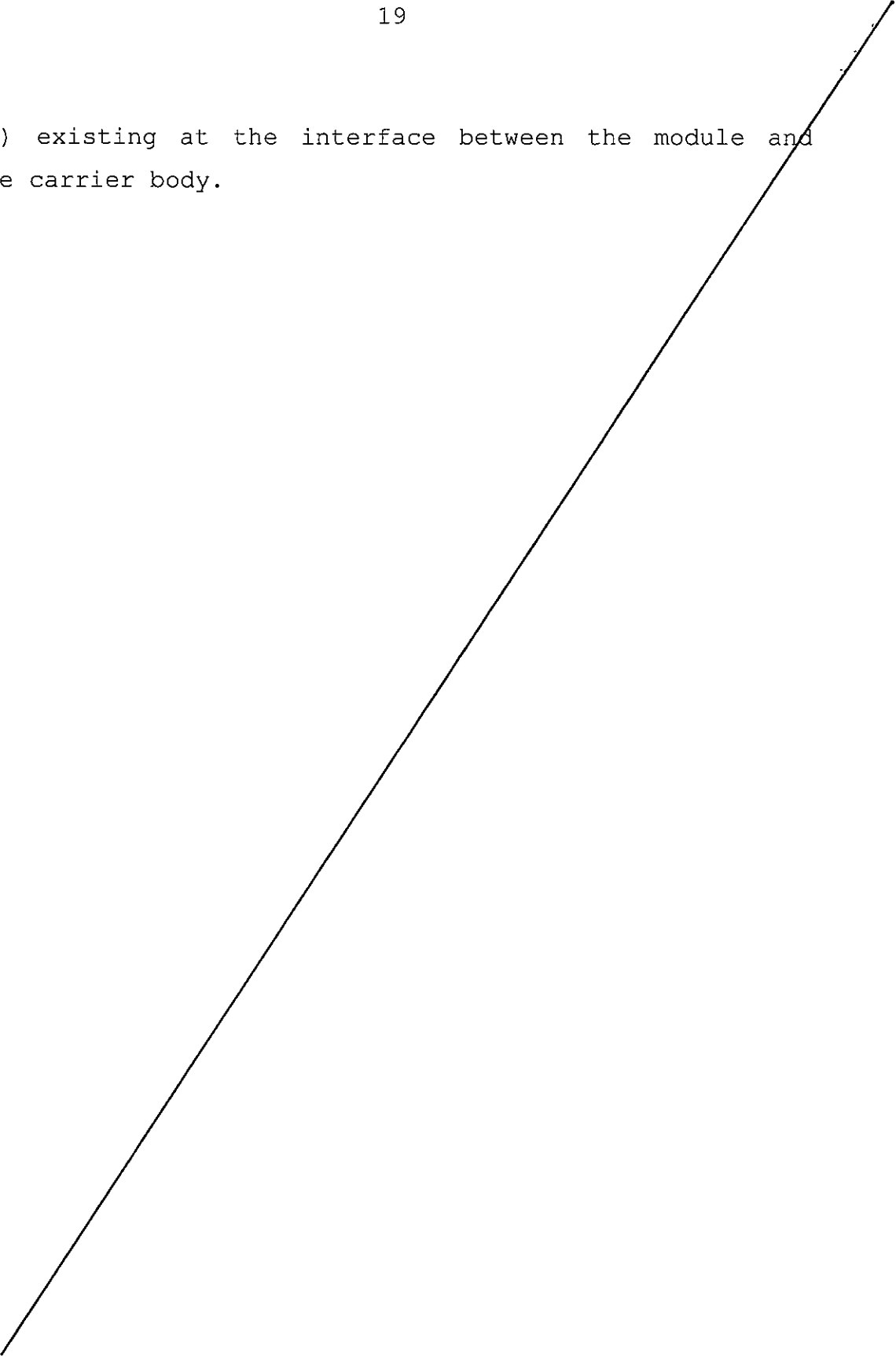
characterised in that it comprises a flexible or elastic material arranged in the device so as to at least partially fill or cover said space or gap between the module and the carrier body.

8. A device according to the preceding claim, characterised in that the flexible material comprises a conductive connection material arranged and compressed in the device so as to connect the module to the circuit and to flow into said space or gap in order to fill it at least partially.

9. A device according to the preceding claim, characterised in that the conductive material is anisotropic.

10. An electronic device comprising the intermediate device according to one of claims 7 to 9 and comprising a cover sheet or layer covering said space or gap (I1,

I2) existing at the interface between the module and the carrier body.



CLAIMS

1. A method for manufacturing an intermediate electronic device (SM) for a device having an electronic module covered on both sides with a cover sheet or layer, said method comprising a step of forming a carrier body (31, 32) comprising:

- a cavity (C1, C2) formed in the carrier body,
- an electrical circuit (32) comprising at least one electrical interconnection area (10, 11) inside the cavity,
- an electronic module (11, 12) comprising at least one connection pad connecting said interconnection area, disposed in the cavity,
- a space or gap (I1, I2) existing at the interface between the module and the carrier body, oriented substantially perpendicular to a principal surface of the carrier body, emerging on the surface of the carrier body,

wherein a flexible or elastic material is arranged in the device so as to at least partially fill or cover said space or gap between the module and the carrier body.

2. A method according to the preceding claim, characterised in that the flexible material comprises a conductive connection material arranged and compressed in the device so as to connect the module to the circuit and to flow into said space or gap in order to at least partially fill it.

3. A method according to the preceding claim, characterised in that the conductive material is of the anisotropic type.

4. A method according to the preceding claim, characterised in that the anisotropic material surrounds the module.

5. A method according to the preceding claim, characterised in that the device comprises a patch (35) made from flexible or elastic material covering the interface.

6. A method according to the preceding claim, characterised in that the device comprises at least one cover sheet (38) on top of or below said patch or the gap.

7. An intermediate electronic device (SM) covered on both sides with a cover sheet or layer, comprising:

- a carrier body (31, 32)
- a cavity (C1, C2) formed in the carrier body,
- an electrical circuit (32) comprising at least one electrical interconnection area (Z1, Z2) inside the cavity,
- an electronic module (17) comprising at least one connection pad (10, 11) connecting said interconnection area, disposed in the cavity,
- a space or gap (I1, I2) existing at the interface between the module and the carrier body, oriented

substantially perpendicular to a principal surface of the carrier body and emerging on the surface of the carrier body, an intermediate electronic device (SM), emerging on the surface of the carrier body, wherein it comprises a flexible or elastic material arranged in the device so as to at least partially fill or cover said space or gap between the module and the carrier body.

8. A device according to the preceding claim, characterised in that the flexible material comprises a conductive connection material arranged and compressed in the device so as to connect the module to the circuit and to flow into said space or gap in order to fill it at least partially.

9. A device according to the preceding claim, characterised in that the conductive material is anisotropic.

10. An electronic device comprising the intermediate device according to one of claims 7 to 9 and comprising a cover sheet or layer covering said space or gap (I1, I2) existing at the interface between the module and the carrier body.