Claims

1. A RFID tag comprising:

a RFID inlay having a RFID chip and a tuned antenna embedded therein;

a non-conducting layer attaching to one side of the RFID inlay;

an overlay attaching on the other side of the RFID inlay~~two surface printable layers sandwiching the RFID and the non-conducting layer there between~~; and

an underlay attaching to the non-conducting layer, wherein the underlay and the overlay sandwiched the RFID and the non-conducting layer there between,

wherein the underlay is to be placed in adjacent to an attaching surface, such that the RFID inlay is spaced apart from the attaching surface via the non-conducting layer.

2. The RFID tag according to claim 1, further comprising an extended antenna extended from the RFID inlay through to the other side of the non-conducting layer, wherein the extended antenna is embedded in an extrusion inlay, wherein the extended antenna is connected as one tuned antenna for the RFID tag.

3. The RFID tag according to claim 1, wherein the RFID inlay is an extrusion inlay.

4. The RFID tag according to claim 1, wherein the RFID tag is fabricated through a precision lamination process.

5. The RFID tag according to claim 1, wherein the non-conducting layer is made up of flexible material.

6. The RFID tag according to claim 1, wherein the non-conducting layer is finely cut with precision laser in a criss-cross fashion.

7. The RFID tag according to claim 1, wherein the two printable layer is made up of tamper-evident material.

8. The RFID tag according to claim 7, wherein the tamper-evident material is an eggshell label.

9. The RFID tag according to claim 7, wherein the temper-evident material is incorporate with diced inlet embedded within.

10. The RFID tag according to claim 1, further comprising a further non-conducting layer attaches to the other side of the RFID inlay.

11. A method for forming an RFID tag, the method comprising:

forming an RFID inlay having a RFID chip and a tuned antenna embedded therein;

attaching one side of the RFID inlay to an overlay;

attaching a non-conducting layer to other side of the RFID inlay; and

~~sandwiching the RFID and the non-conducting layer between two surface printable layers~~attaching an underlay to the other side of the conducting layer, wherein the underlay and overlay sandwiched the RFID and the non-conducting layer therebetween;

wherein the underlay Is to be placed in adjacent to an attaching surface such that the RFID inlay is spaced apart from the attached surface via the non-conducting layer.

12. The method according to claim 11, further comprising forming an extended antenna from the RFID inlay through to the other side of the non-conducting layer, wherein the extended antenna is embedded in an extrusion inlay, wherein the extended antenna is connected as one tuned antenna for the RFID tag.

13. The method according to claim 11, wherein the RFID inlay is an extrusion inlay.

14. The method according to claim 11 is a precision lamination process.

15. The method accordingly to claim 11, wherein the non-conducting layer is made up of flexible material.

16. The method according to claim 11, wherein the non-conducting layer is finely cut with precision laser in a criss-cross fashion.

17. The method according to claim 11, wherein the two printable layer is made up of tamper-evident material, such as an eggshell label.

18. The method according to claim 11, further comprising attaching a further non-conducting layer attaches to the other side of the RFID inlay.

19. A RFID tag comprising:

a RFID inlay having a RFID chip and a tuned antenna embedded therein;

a non-conducting layer attaching to one side of the RFID inlay;

an overlay attaching on the other side of the RFID inlay;

an underlay attaching to the non-conducting layer, wherein the underlay and the overlay sandwiched the RFID and the non-conducting layer there between; and

an extended antenna extending from the RFID inlay through to the other side of the non-conducting layer as one tuned antenna for the RFID tag,

wherein the underlay is to be placed in adjacent to an attaching surface, such that the RFID is spaced apart from the attaching surface via the non-conducting layer.

~~18.~~20. The RFID tag of claim 19, wherein the overlay has adhesive on the outer surface.