

METHOD FOR MANUFACTURING AN ELECTRICAL CIRCUIT FOR AN
ELECTRONIC CHIP CARD MODULE WITH COLOURED CONTACTS AND
ELECTRICAL CIRCUIT PRODUCED BY THIS METHOD
~~ELECTRIC CIRCUIT FOR AN ELECTRONIC CHIP CARD MODULE WITH~~
~~COLOURED CONTACTS AND METHOD FOR PRODUCING SAME~~

Technical Field

[001] The invention relates to the field of electrical circuits having contacts or conductive tracks of connectors.

Prior Art

[002] In the present document, an example of an application of the electrical circuit according to the invention is taken from the chip card field, but this example is readily transferable to other electrical circuit applications. Notably, the invention is particularly advantageous in all cases in which the conductive tracks are visible on the finished product as used by a consumer. For example, the production of coloured contacts for connectors of SD memory cards or USB sticks can also provide added aesthetic value.

[003] A chip card has an electronic module with electrical contact - or connector - areas for the connection and communication of at least one electronic chip, attached to the module, to and with a read/write system.

[004] Specifically, a chip card is generally constituted by a relatively rigid support, for example made of plastics material, constituting the main part of the card, in which a separately manufactured electronic module is incorporated. This electronic module has a generally flexible printed circuit provided with an electronic chip (integrated circuit) and connection - or connector - means constituted, for example, by contacts formed by conductive metal tracks flush with the electronic module, on the surface of the support.

[005] Chip cards have multiple uses: credit cards, SIM cards for mobile telephones, travelcards, identity cards, etc.

[006] As well as the need to have good electrical conduction between the contacts and the connector of a read/write device, chip card manufacturers now wish to match the colour of the contacts to the colour(s) of the card. For this purpose, the contacts are generally covered either with a layer of gold, in order to obtain a gilded finish, or with a layer of silver or palladium, in order to obtain a silvered finish.

[007] In order to obtain more colours, it is possible to use a method as described in the document US6259035B1. This method relies on the use of solutions based on gold, palladium or silver in order to obtain a wider spectrum of colours. However, this type of method does not make it possible to obtain certain colours, notably a black or near-black colour.