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- (54) **Title:** ARTICLES OF MANUFACTURE RELATING TO IC MODULES AND SMART CARDS

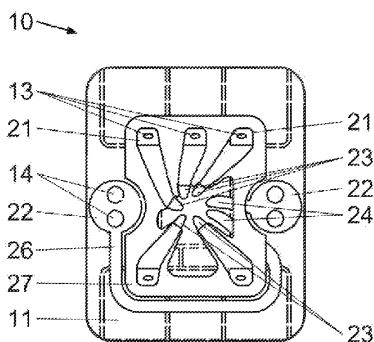


Figure 1B

- (57) **Abstract:** The present disclosure relates to carrier tapes, IC modules, and smart card devices. According to one embodiment, an article of manufacture comprises: a non-conductive substrate having a front side and a rear side, and a plurality of through holes extending from the front side to the rear side; a smart card contact area arranged on the front side of the substrate and having a plurality of conductive pads which are mutually insulated and close front-side ends of the through holes; a plurality of through-hole solder pads and a plurality of conductive traces arranged on the rear side of the substrate, wherein the through-hole solder pads are arranged at rear-side ends of the through holes, wherein the conductive traces are conductively coupled to the through-hole solder pads respectively; and a solder mask at least partially overlaying the conductive traces.

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