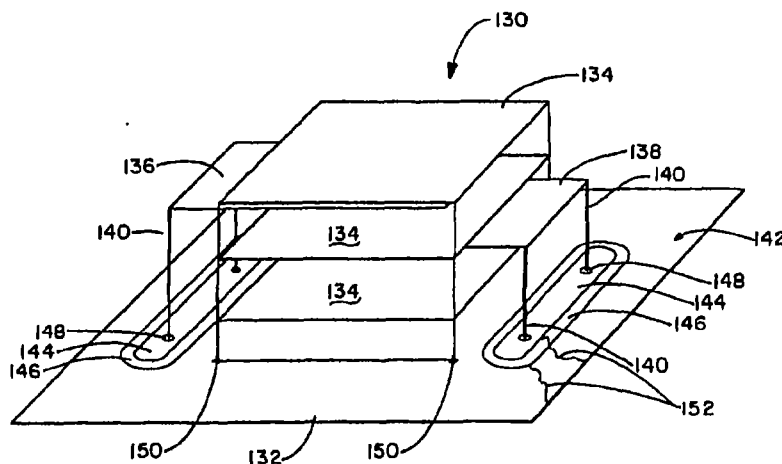




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(54) Title: ENERGY CONDITIONING CIRCUIT ASSEMBLY



(57) Abstract

The present invention is a component carrier (132) consisting of a plate of insulating material having a plurality of apertures (140) for accepting the leads of a thru-hole differential and common mode filter (130). Another embodiment consists of a surface mount component carrier (10) comprising a disk (16) of insulating material having a plurality of apertures (24). The same concept for the above described carrier is also incorporated into several alternate embodiments, either independently, embedded within electronic connectors. The overall configuration and electrical characteristics of the concepts underlying the present inventions are also described as an energy conditioning circuit assembly which encompasses the combination of differential and common mode filters and component carriers optimized for such filters. The various embodiments of components carriers provide increased physical support and protection to differential and common mode filters and substantially improve the electrical characteristics of the filter due to the increased shielding provided by the carriers. Embodiments of the carrier energy conditioning assembly include integrated circuit construction for a differential and common mode filter coupled to the power bus of an integrated circuit.

