Title (en)

INTERCONNECT ASSEMBLIES AND METHODS

Title (de)

VERBINDUNGSSTRUKTUR UND METHODE

Title (fr)

ENSEMBLES D'INTERCONNEXION ET PROCEDES

Publication

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Application

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Abstract (en)

[origin: WO0109952A2] An interconnect assembly and methods for making and using the assembly. An exemplary embodiment of an aspect of the invention includes a contact element which includes a base portion adapted to be adhered to a substrate and a beam portion conencted to and extending from the base portion. The beam portion is designed to have a geometry which substantially optimizes stress across the beam portion when deflected (e.g. it is triangular in shape) and is adapted to be freestanding. An exemplary embodiment of another aspect of the invention involves a method for forming a contact element. This method includes forming a base portion to adhere to a substrate of an electrical assembly and forming a beam portion connected to the base portion. The beam portion extends from the base portion and is designed to have a geometry which substantially evenly distributes stress across the beam portion when deflected and is adapted to be freestanding. It will be appreciated that in certain embodiments of the invention, a plurality of contact elements are used together to create an interconnect assembly. Interconnect assemblies having resilient contact elements and methods for making these assemblies. In one aspect, the interconnect assembly includes a substrate and a resilient electrical contact element disposed on the substrate. A first portion of the resilient contact structure is disposed on the substrate and a second portion extends away from the substrate and is capable of moving from a first position to a second position under the application of a force. A stop structure is disposed on the surface of the substrate and on a surface of the first portion of the resilient contact structure. According to another aspect of the present invention, a beam portion of the resilient contact structure has a substantially triangular shape.

IPC 1-7

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