

ABSTRACT

This application discloses a stretchable rigid-flex interconnection structure with gradient stiffness, including a support body, a stretchable substrate, a stretchable circuit layer, a non-stretchable circuit layer, and a sealing layer, where the non-stretchable circuit layer is electrically connected to the stretchable circuit layer and there is an overlapping region at an interface therebetween, and a projection of the support body onto the stretchable substrate covers a projection of the non-stretchable circuit layer onto the stretchable substrate; the stretchable circuit layer has a stretching direction and a normal direction, and the support body has gradient stiffness along the stretching direction or along the normal direction. The stretchable rigid-flex interconnection structure of this application, based on the support body with the gradient stiffness, can reduce a risk of disconnection and fracture that are prone to occurring at an interconnection interface.

FIG. 1