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CN 111357102 A CN 107017238 A
US 7348666 B2 US 20210134728 A1
US 20210020529 A1

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(54) Title of the Invention: Bonding of bridge to multiple semiconductor chips
Abstract Title: Bonding of bridge to multiple semiconductor chips

(57) Interconnecting a first chip and a second chip by a bridge member includes a chip handler for handling the first chip and the second chip. Each of the first chip and the second chip has a first surface including a first set of terminals and a second surface opposite to the first surface. The chip handler has an opening and at least one support surface for supporting the first surfaces of the first chip and the second chip when the first chip and the second chip are mounted to the chip handler. A chip support member supports the first chip and the second chip from the second surfaces, and a bridge handler is provided for inserting the bridge member through the opening of the chip handler and for placing the bridge member onto the first sets of terminals of the first chip and the second chip.

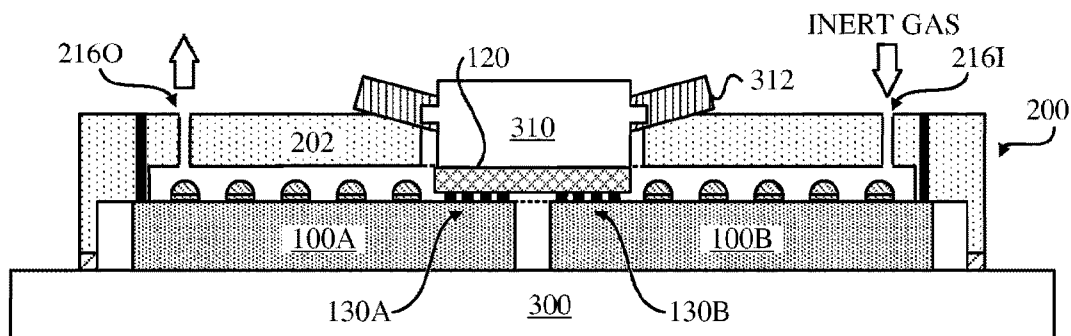


FIG. 4A

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