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(54) Title: SEMICONDUCTOR DEVICE AND METHOD OF ADAPTIVE PATTERNING FOR PANELIZED PACKAGING

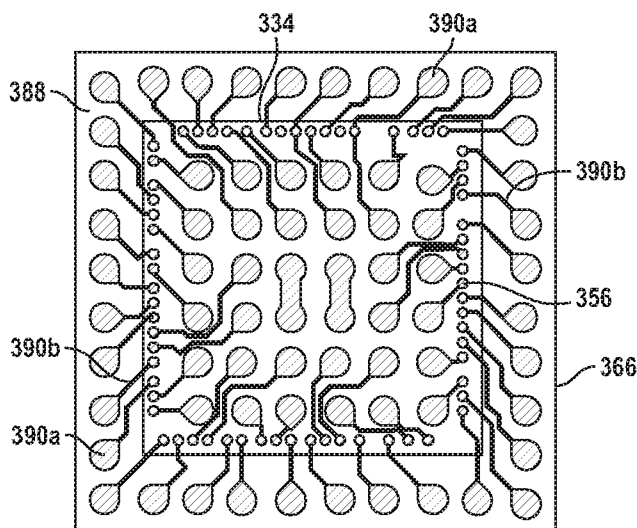


FIG. 13G

(57) Abstract: An adaptive patterning method and system for fabricating panel based package structures is described. A plurality of semiconductor die comprising a copper column disposed over the active surface of each semiconductor die is provided. An embedded die panel is formed by disposing an encapsulant around each of the plurality of semiconductor die. A true position and rotation of each semiconductor die within the embedded die panel is measured. A unit-specific pattern is formed to align with the true position of each semiconductor die in the embedded die panel. The unit-specific pattern as a fan-out structure disposed over the semiconductor die, over the encapsulant, and coupled to the copper columns. A fan-in redistribution layer (RDL) can extend over the active surface of each semiconductor die such that the copper columns formed over the fan-in RDLs. The unit-specific pattern can be directly coupled to the copper columns.

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