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(54) Title: USING PATTERNS AS ALIGNMENT MARKERS

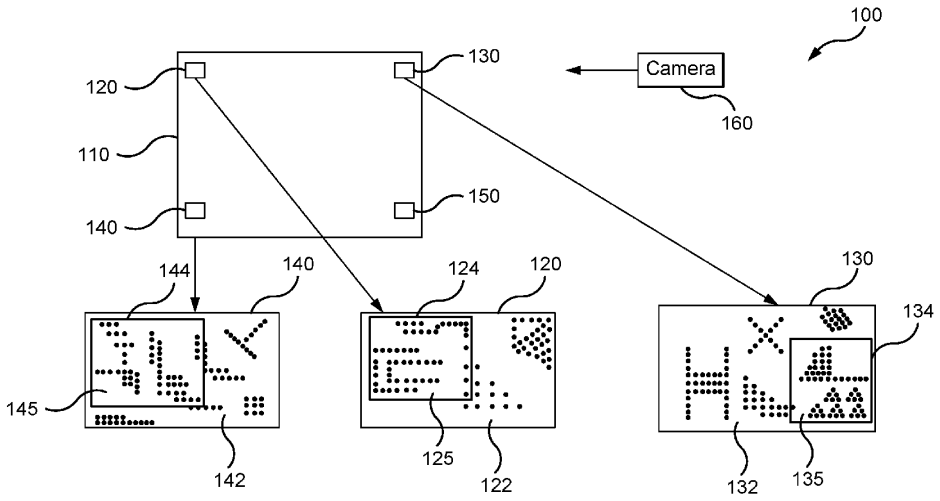


FIG. 1A

(57) Abstract: Embodiments of the present disclosure provide a method including capturing images of features on a die formed on a semiconductor substrate, extracting patterns from a portion of each captured image, and combining the patterns to form an alignment marker. The images are captured from four corners of the die. The patterns from the portion of each captured image are compared to other patterns on the die to determine uniqueness of the patterns. Embodiments of the present disclosure further provide a method including capturing images on a semiconductor substrate, extracting, from the images captured, patterns from previous material layers placed on the semiconductor substrate, and combining the patterns extracted from the previous material layers placed on the semiconductor substrate to form an alignment marker. The alignment marker facilitates precise alignment of lithographic masks.

WO 2025/216787 A1

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