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(54) Title: DETECTION AIDED TWO-STAGE PHASE UNWRAPPING ON PATTERN WAFER GEOMETRY MEASUREMENT

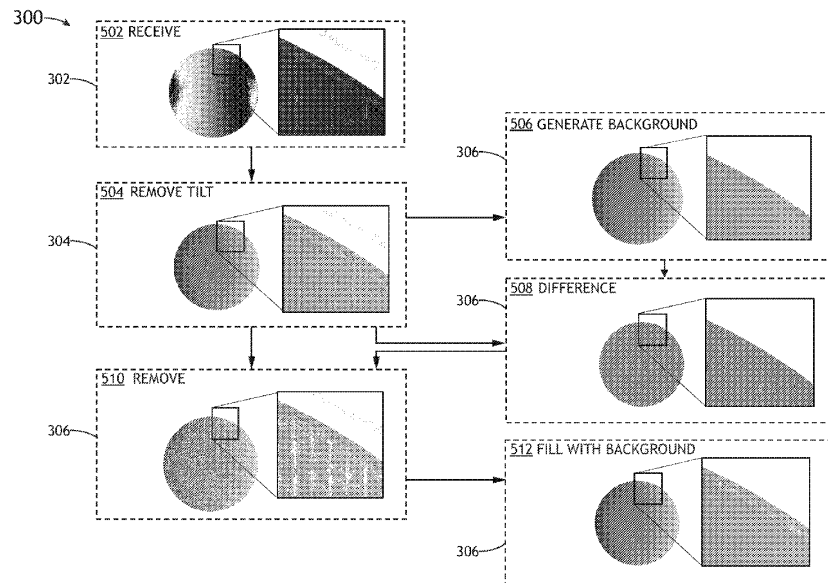


FIG. 5A

(57) Abstract: Systems and methods for unwrapping a phase map are disclosed. Such systems and methods may include receiving a wrapped phase map associated with an interferometric measurement of a sample including patterned features; removing a tilt from the wrapped phase map; generating a background; detecting features in the wrapped phase, the features in the wrapped phase map corresponding to least some of the patterned features of the sample; replacing phases of the features with the background at corresponding locations in the wrapped phase map; unwrapping the modified wrapped phase map using a global phase-unwrapping; applying local phase-unwrapping to restore the phases of the features; and reapplying the tilt to generate an output unwrapped phase map.

[Continued on next page]

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