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(54) **Title:** METROLOGY AND CONTROL OF OVERLAY AND EDGE PLACEMENT ERRORS

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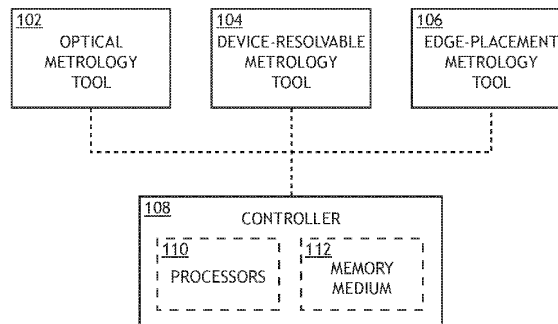


FIG.1A

(57) **Abstract:** An overlay metrology system may include a controller to generate optical tool error adjustments for a hybrid overlay target including optically-resolvable features and device-scale features by measuring a difference between an optical overlay measurement based on the optically-resolvable features and a device-scale overlay measurement based on the device-scale features, generate target-to-device adjustments for the hybrid overlay target based on positions of features within the device area, determine device-relevant overlay measurements for one or more locations in the device area based on at least one of the optical overlay measurement, the optical tool error adjustments, or the target-to-device adjustments, and provide overlay correctables for the device area to a lithography tool to modify exposure conditions for at least one subsequent exposure based on the device-relevant overlay measurements.

[Continued on next page]

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