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(54) Title: LOCALIZED TELECENTRICITY AND FOCUS OPTIMIZATION FOR OVERLAY METROLOGY

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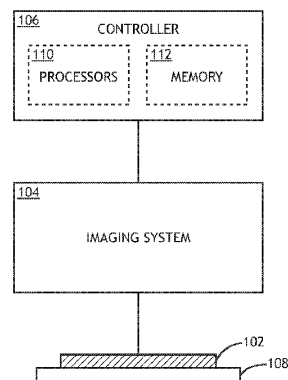


FIG. 1A

(57) Abstract: An overlay metrology tool providing site-by-site alignment includes a controller coupled to a telecentric imaging system. The controller may receive two or more alignment images of an overlay target on a sample captured at two or more focal positions by the imaging system, generate alignment data indicative of an alignment of the overlay target within the imaging system based on the alignment images, set the alignment images as measurement images when the alignment of the overlay target is within selected alignment tolerances, direct the imaging system to adjust the alignment of the overlay target in the imaging system and further receive one or more measurement images from the imaging system when the alignment of the overlay target is outside the selected alignment tolerances, and determine overlay between two or more layers of the sample based on at least one of the measurement images.

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