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ABSTRACT

METHOD AND APPARATUS FOR PLACING ASSIST FEATURES

One embodiment of the present invention provides a system that determines a location in a layout to place an assist feature. During operation, the system receives a layout of an integrated circuit. Next, the system selects an evaluation point in the layout. The system then chooses a candidate location in the layout for placing an assist feature. Next, the system determines the final location in the layout to place an assist feature by, iteratively, (a) selecting perturbation locations for placing representative assist features in the proximity of the candidate location, (b) computing aerial-images using an image intensity model, the layout, and by placing representative assist features at the candidate location and the perturbation locations, (c) calculating image-gradient magnitudes at the evaluation point based on the aerial-images, and (d) updating the candidate location for the assist feature based on the image-gradient magnitudes.

No Figure