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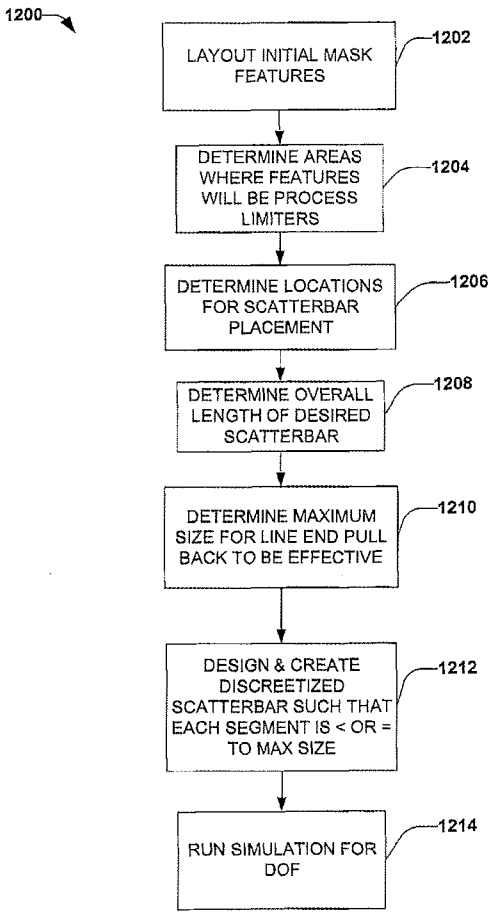
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(54) Title: IMPROVED PROCESS MARGIN USING DISCRETE ASSIST FEATURES



(57) Abstract: The subject invention provides a system and method for improving the process margin of a lithographic imaging system. The process margin improvement is achieved through the novel placement of discrete assist features and/or the use of forbidden pitches and specific pitch orientations (1310, 1312). Novel geometries are utilized, which take advantage of line-end pull back and/or a lack of resolution of pitches perpendicular to an axis of a dipole illumination source (822, 824). The strategic placement of a series of discrete scatterbar segments on a mask near positions of critical features, such as, for example, contacts, mitigates resist residue that can result from the use of a contiguous scatterbar (1212, 1312).

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