

WHAT IS CLAIMED IS:

1. A replaced photomask comprising:  
a substrate; and  
a plurality of etched patterns formed on the substrate according to a photomask layout which has a plurality of photomask layout patterns categorized into a plurality of first groups each of which includes a plurality of identical initial layout patterns, and is reproduced from an initial layout having a plurality of initial layout patterns categorized into a plurality of second groups to which the plurality of first groups respectively correspond, wherein the plurality of photomask layout patterns respectively correspond to the plurality of initial layout patterns and at least one of the plurality of the photomask layout patterns is replaced by a standardized photomask layout pattern.
2. A replaced photomask as claimed in claim 1, wherein the plurality of photomask layout patterns are obtained from inverting the plurality of initial layout patterns of an initial layout.
3. A replaced photomask as claimed in claim 1, wherein the at least one of the plurality of photomask layout patterns is automatically replaced by an algorithm.
4. A replaced photomask as claimed in claim 1, wherein each of the plurality of first groups each of which consists of a plurality of identical initial layout patterns.
5. A replaced photomask as claimed in claim 4, wherein all the identical initial layout patterns have the same shape and the same size.
6. A replaced photomask as claimed in claim 1, wherein the standardized photomask layout pattern is determined by simulating the plurality of photomask layout patterns and then by selecting one of the plurality of photomask layout patterns as the standardized photomask layout

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pattern according to a result of the simulation.