

Title (en)  
DESIGN RULE CHECKING SYSTEM AND METHOD

Title (de)  
METHODE UND SYSTEM ZUR KONTROLLE VON ENTWURFSREGELN

Title (fr)  
PROCEDE ET SYSTEME DE CONTROLE DE REGLES DE CONCEPTION

Publication  
**EP 1023641 A1 20000802 (EN)**

Application  
**EP 98951922 A 19980917**

Priority

- US 9819510 W 19980917
- US 5930697 P 19970917
- US 93192197 A 19970917
- US 6954997 P 19971212
- US 13099698 A 19980807
- US 15439798 A 19980916
- US 15378398 A 19980916

Abstract (en)  
[origin: WO9914638A1] A method for performing design rule checking on an optical proximity correction (OPC) corrected or otherwise corrected designs is described. The corrected design is accessed to generate a simulated image (2010). The simulated image corresponds to a simulation of an image which would be printed on a wafer if the wafer was exposed to an illumination source directed through the corrected design (2020). The characteristics of the illuminaiton source are determined by a set of lithography parameters. In creating the image, additional characteristics can be used to simulate portions of the fabrication process. The simulated image can then be used by the design rule checker. Importantly, the simulated image can be processed to reduce the number of vertices in the simulated image, relative to the number of vertices in the OPC corrected design layout (2020). Also, the simulated image can be compared with an ideal layout image, the results of which can then be used to reduce the amount of information that is needed to perform the design rule checking.

IPC 1-7  
**G03F 9/00**; **G06F 17/00**; **G06F 17/50**

IPC 8 full level  
**G03F 1/00** (2012.01); **G03F 1/08** (2006.01); **G03F 1/14** (2006.01); **G03F 9/00** (2006.01); **G06F 17/00** (2006.01); **G06F 17/50** (2006.01); **H01L 21/027** (2006.01); **H01L 21/82** (2006.01)

CPC (source: EP KR)  
**G03F 1/36** (2013.01 - EP); **G03F 7/70116** (2013.01 - KR); **H01L 27/0207** (2013.01 - KR)

Cited by  
TWI681479B

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**WO 9914638 A1 19990325**; AU 9396098 A 19990405; AU 9396198 A 19990405; AU 9775198 A 19990405; EP 1023639 A1 20000802; EP 1023639 A4 20090429; EP 1023641 A1 20000802; EP 1023641 A4 20090422; JP 2003523545 A 20030805; JP 2003526110 A 20030902; JP 4624550 B2 20110202; KR 20010024113 A 20010326; KR 20010024117 A 20010326

DOCDB simple family (application)  
**US 9819510 W 19980917**; AU 9396098 A 19980917; AU 9396198 A 19980917; AU 9775198 A 19980917; EP 98947103 A 19980917; EP 98951922 A 19980917; JP 2000512110 A 19980917; JP 2000512112 A 19980917; KR 20007002869 A 20000317; KR 20007002873 A 20000317