

A Method Of Performing Model-Based Scanner Tuning**ABSTRACT**

A model-based tuning method for tuning a first lithography system utilizing a reference lithography system, each of which has tunable parameters for controlling imaging performance. The method includes the steps of defining a test pattern and an imaging model; imaging the test pattern utilizing the reference lithography system and measuring the imaging results; imaging the test pattern utilizing the first lithography system and measuring the imaging results; calibrating the imaging model utilizing the imaging results corresponding to the reference lithography system, where the calibrated imaging model has a first set of parameter values; tuning the calibrated imaging model utilizing the imaging results corresponding to the first lithography system, where the tuned calibrated model has a second set of parameter values; and adjusting the parameters of the first lithography system based on a difference between the first set of parameter values and the second set of parameter values.

(Figure 1)