

LITHOGRAPHIC APPARATUS, DEVICE MANUFACTURING
METHOD, DEVICE MANUFACTURED THEREBY, AND
CONTROLLABLE PATTERNING DEVICE UTILIZING A
SPATIAL LIGHT MODULATOR WITH DISTRIBUTED
DIGITAL TO ANALOG CONVERSION

ABSTRACT

The present invention comprises a lithographic apparatus and device manufacturing method that uses a patterning device that increase a number of individually controllable elements that are programmed simultaneously to increase an update rate of an array of individually controllable elements. A number of required high speed analog inputs to the array is reduced. The complexity of the array is reduced and the maximum update speed of the array is increased. Furthermore, the number of elements within an array can be readily expanded. The patterning device can be divided into a plurality of groups of cells and the lithographic apparatus can comprise a plurality of supply channels. Each supply channel can be arranged to provide a voltage signal to each cell in a respective group of cells. This can reduce the number of required inputs to the patterning device for individually addressing each cell.

Figure 1