

LIGHT PATTERNING DEVICE USING TILTING MIRRORS IN A SUPERPIXEL FORM

ABSTRACT OF DISCLOSURE

A light patterning system comprises an illumination system that supplies a beam of radiation having a certain wavelength (λ). An array of reflective pixels patterns the beam, wherein the array includes pixels having at least a first tilting mirror that is logically coupled to a second tilting mirror. In an embodiment, the first and second tilting mirrors are (i) substantially adjacent to each other; and (ii) offset in height from each other by a first mirror displacement. A projection system is included that projects the patterned beam onto a target. In alternate embodiment, the array of reflective pixels includes pixels having first through fourth tilting mirrors that are logically coupled to each other. The first through fourth tilting mirrors are (i) respectively offset in height from a reference plane by first through fourth mirror displacements, and (ii) are respectively arranged clockwise in a substantially square pattern.

Figure 1