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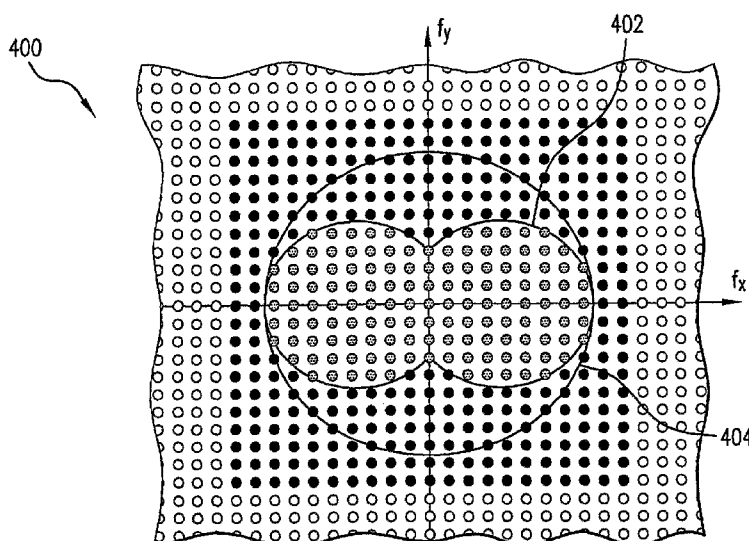
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- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR A MASKLESS LITHOGRAPHY RASTERIZATION TECHNIQUE BASED ON GLOBAL OPTIMIZATION



- ● ○ —the locations of the diffraction orders (d.o.s.) generated by the ideal mask;
- ○ —the locations of the 1st period d.o.s. generated by the graytoning squares;
- —the locations of the essential d.o.s. affecting the aerial image;

(57) Abstract: Provided are a method and system for determining states of spatial light modulator (SLM) pixels in a lithography system configured to print a desired pattern. The method includes determining diffraction orders associated with an ideal mask of a pattern to be printed by the lithography system, and then configuring the states of the SLM pixels to match all the diffraction orders that are relevant in the image formation.

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