

SYSTEMS AND METHODS FOR AUTOMATICALLY VERIFYING CORRECT DIE REMOVAL FROM FILM FRAMES

ABSTRACT

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A skeleton wafer inspection system includes an expansion table displaceable relative to a camera configured for capturing segmental images of a skeleton wafer on a film frame. During segmental image capture, illumination is directed to the top and/or bottom of the film frame. Segmental images are digitally stitched together to produce a composite image, which
10 can be processed to identify die presence or absence therein at active area die positions having counterpart die positions in a process wafer map. A composite image of a diced wafer on a film frame can also be generated, and used as a navigation aid or guide during die sort operations, or to verify whether a die sort apparatus has correctly detected a reference die
15 generated for use as a navigation aid or guide for film frame repopulation operations.

FIG. 9