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Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, or importing into the United States of America, products made by that process, for the term set forth in 35 U.S.C. 154(a)(2) or (c)(1), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b). See the Maintenance Fee Notice on the inside of the cover.

Michelle K. Lee

Deputy Director of the United States Patent and Trademark Office



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(54) **METHOD AND APPARATUS FOR IMPROVED SORTING OF DICED SUBSTRATES**

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See application file for complete search history.

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(57) **ABSTRACT**

A method for inspecting and sorting a plurality of IC units comprising the steps of: delivering a frame containing said IC units to a unit picking station; conducting a first inspection of said units during the delivering step and recording the subsequent result; removing said units from the frame, and moving said units from the unit picking station to a flipping station; conducting a second inspection of said units during the moving step and recording the subsequent result; flipping said units to expose an opposed face said units; conducting a third inspection of said opposed face and recording the subsequent result, then; sorting said units into categories based on the recorded results from the first, second and third inspecting steps.

10 Claims, 13 Drawing Sheets

