

camera should be used 1000 times to identify the position information of all wafer dies. Accordingly, it takes a long time.

DETAILED DESCRIPTION OF THE INVENTION

TECHNICAL PROBLEM

[0005] Provided is a method in which the position information of wafer dies which are divided in a dicing process can be accurately measured and laser marking is performed by using a line scan camera.

SUMMARY

[0005a] An aspect of the present invention provides a marking method of a plurality of wafer dies which are divided by a wafer dicing process, with a laser marker, the method comprising: setting a plurality of scan areas on the wafer including the wafer dies in which some of the scan areas overlap each other; performing a plurality of scan processes for scanning the scan areas on the wafer by using a line scan camera; collecting position information of each wafer die located on areas where the scan areas do not overlap; collecting through image synthesis position information of each wafer die located on areas where the scan areas overlap; and performing marking of each of the wafer dies whose position information is collected with the laser marker.

ADVANTAGEOUS EFFECTS OF THE INVENTION

[0006] According to embodiments of the present invention, the shape and position information of wafer dies which are divided in a dicing process and arranged irregularly can be quickly collected by using a line scan camera. If a laser marking job is performed based on the thus-collected shape and position information of the wafer dies, marking can be accurately performed on a required location of each of the divided wafer dies.

DESCRIPTION OF THE DRAWINGS

[0007] FIG. 1 shows wafer dies arranged irregularly after a wafer is divided in a dicing process.

[0008] FIG. 2 is a flowchart of a marking method of wafer dies according to an embodiment of the present invention.

[0009] FIG. 3 illustrates a method of making the coordinate system of a line scan camera coincide with the coordinate system of a laser marker.

[00010] FIGS. 4A through 4C show a line scan camera scanning multiple times wafer dies on a wafer according to an embodiment of the present invention.

[00011] FIG. 5 illustrates a method of collecting shape and position information of wafer dies in a scan area in which scan areas do not overlap.

[00012] FIGS. 6A through 6D illustrate a method of collecting shape information of wafer dies in a scan area in which scan areas overlap.