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Semiconductor devices are a core requirement for all electronic devices. Science and industry especially depend heavily on semiconductor devices.

Integrated circuits are an important part of a semiconductor device and the fabrication of the same is an important process. A wafer is used in this process. A wafer is basically a slice or a piece of semiconductor material. A wafer undergoes micro fabrication process like etching, doping, photolithographic patterning and deposition of different materials. At the end, the each microcircuit is separated and packaged. The process of separating the microcircuit is called as dicing..

This article mainly discusses about Silicon dicing and silicon wafer dicing

Silicon Wafers are available in a range of sizes from 1 inch to 11.8 inches. Silicon wafer dicing can be carried out either by mechanical sawing or laser cut also called as stealth dicing. Mechanical sawing for dicing is done by mounting the wafers on a dicing tape has a thin sheet metal frame which holds the wafer. The dicing tape has a sticking back which enables a strong hold. Once the dicing process is completed, the pieces are left out on the dicing tape and these pieces are referred as die, dies or dice. These pieces are either packed suitably or directly placed on the printed circuit board substrate. After the dicing is completed, die will be left to stay on the dicing tape which is then extracted by die handling equipment.

The other technique of Dicing is stealth dicing or laser based technique. This is a two stage process. In the stage one, a beam is scanned along the intended cutting lines to introduce the defect regions into the wafers. Next a fracture is induced by expanding an underlying carrier membrane.

Stealth Dicing is more advantageous than the dry dicing. It does not require a cooling liquid and very less debris are generated.

Finally silicon dicing has made a huge revolution in the electronic industry.

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Nishaidhijames - About Author:
For more information on a Silicon dicing, check out the info available online; these will help you learn to find the http://www.kadcoceramics.com/process-capabilities.htm!

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