Article published on December 22nd 2011 | Technology

Individual chips on a silicon wafer also referred as ICs or integrated circuits are separated out by the process of wafer dicing. The process of dicing is fully automated with the use of a patented, proprietary technology that uses lasers. The important thing to get is efficiency, which translates into ultra thin wafers. The thickness of these wafers is less than 50 microns and this plays a big part in the semiconductor and electronics industry. There are machines which use advanced technologies and have revolutionized the whole process to a great extent. A variety of materials is diced, including ceramics, silicon, gallium arsenide, alumina and even semiconductors which are delicate compounds.

At the time of dicing, the wafers are held firmly on a sticky dicing tape, and once they are diced, we get what is referred to as a die. These will remain on the dicing tape from where they can be removed with the help of special equipment that handles dies. Another important thing to observe is the shape of the dies which you obtain. These could be rectangular, square or even in the form of straight lines with an average thickness of 35mm to about 0.5mm, although it must be noted that 35mm could prove to be a very large size.

There are several processes which are employed for dicing.. For example, you can do dicing through mechanical sawing as well as scribing and breaking. However, the most popular method is laser cutting. The wafer saws can give you a good shape, in the form of straight lines. Once the dies are obtained through dicing, they are then packaged. There are dry dicing and stealth dicing methods too which could be employed in very specific scenarios for very specific requirements such as some micro-electromechanical systems.

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For more information on a wafer dicing, check out the info available online; these will help you learn to find the a wafer dicing!

Article Keywords:
wafer dicing

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