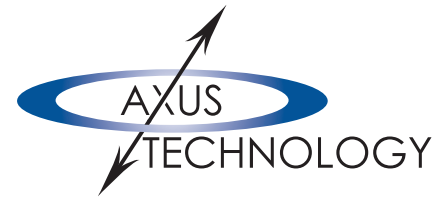


Capstone® Optical EndPoint Determination System (OEPD)



Your source for leading-edge surface processing solutions



The Axus Technology Optical EndPoint Determination system (OEPD) is a full-wafer scan system capable of detecting the endpoint of the chemical mechanical polishing process on typical wafer surfaces which have a deposited thin conducting or insulating film. This prevents under-polish which is time consuming to correct and over-polish which causes waste and elevated total cost of ownership of the CMP process.

When integrated into new CMP polishers from Axus Technology such as the Capstone® CMP tool, and legacy CMP polishers refurbished by Axus Technology including those originally from Speedfam/IPEC, Strasbaugh, and others, this mechanism is designed to run in-situ while the polishing process is underway.

The reflectometer is embedded in the polishing platen. Commercially available polishing pads which have a "window" for laser projection are available from multiple vendors.

Material Examples

- Copper CMP:

In the copper CMP process for example, the system will detect a change in reflectivity values from different parts of the wafer surface. This indicates that a clearing of the copper film is taking place. This continues until full clearing of the copper is achieved.

- Oxide CMP:

This is a different process because in oxide CMP, it is necessary to polish to a specific predetermined point and then stop at the desired thickness specification. This is achieved by using the Axus Technology OEPD System.



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