EVG®40 D2W

Die-to-Wafer Overlay Metrology System

Introduction

The EVG®40 D2W system is the first dedicated die-to-wafer overlay metrology platform to provide 100 percent die overlay measurement with high precision and speeds needed for high volume production environments.

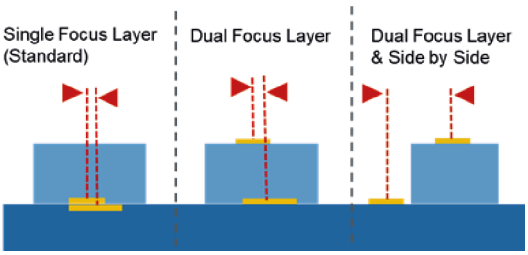
The EVG®40 D2W system is EVG's cutting-edge metrology tool for die-to-wafer alignment verification after bonding. It is designed to meet the stringent overlay accuracy requirements of heterogeneous integration and advanced packaging processes. This tool offers high-resolution die-to-wafer overlay measurements at the highest throughput. In contrast to other measurement methods, where only a fraction of the dies are measured, the EVG40 D2W enables 100 percent inspection for improved process control and yield in high-volume manufacturing (HVM).

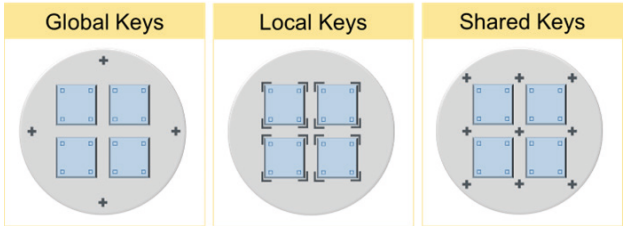
Leveraging state-of-the-art optics and image processing algorithms, the EVG40 D2W delivers overlay measurement capabilities supporting a broad range of distinctive alignment mark layouts and locations, laterally with side-by-side fiducials and vertically enabled by dual focus optics.

Supporting a wide range of advanced packaging technologies such as fan-out wafer-level packaging (FOWLP), 2.5D/3D integration, and chiplet-based architectures, the EVG40 D2W empowers engineers with the insights needed to ensure alignment excellence and process reliability.

Features

- High throughput (up to 15X higher than EVG's industry benchmark EVG®40 NT2 system), enabling 100% inspection
- Dual Focus enables flexible alignment mark locations vertically
- Infrared light allows alignment marks within bond interface
- Universal Measurement Process enables side by side fiducials
- Free access to measurement data
- Up to 5-parameter overlay model providing feedback parameters for process optimization





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