Surfscan® SP A2/A3

Unpatterned wafer inspection systems detect a wide range of critical defects and surface quality issues that affect the yield and reliability of semiconductor chips

BENEFITS:

The Surfscan SP A2 and SP A3 support process and process tool qualification and monitoring for chip, wafer and equipment manufacturers through detection of critical defects at high sensitivity and throughput, helping automotive chipmakers:

- Achieve Zero Defect requirements by isolating sources of random defectivity, which can impact chip reliability, during R&D and production
- Implement Continuous Improvement Programs that address sources of process tool defectivity, ensuring that all process tools meet the minimum standard required to achieve automotive reliability goals
- Identify the best performing process tools for use in automotive workflows

TECHNOLOGIES:

- DUV laser source and DUV-optimized optics
- Standard darkfield and optional brightfield inspection modes with concurrent operation
- Automated defect and defect signature classification
- Advanced algorithms and image computer
- SURFmonitor™ surface quality measurement and characterization module
- SurfServer® fleet and recipe management

APPLICATIONS:

- Outgoing and incoming wafer quality control
- Qualification and monitoring of materials, chemicals, processes and process tools during high volume manufacturing
- Process characterization, debug and qualification during R&D

MARKETS:

Chip, wafer, equipment and materials/chemical manufacturing larger design node devices for automotive, IoT, 5G, consumer electronics, industrial (military, aerospace, medical)

PLATFORM:

- Customizable configurations

WAFER SIZES:

- Surfscan SP A3: 300mm
- Surfscan SP A2: 200mm, 150mm