



# LSL-2500

## LIGHT SCATTERING TOMOGRAPH ENHANCED WITH LOW-ANGLE ILLUMINATION

On the semiconductor market LSL-2500 is a unique metrology system for **Bulk Micro Defect (BMD) inspection**.

Its special **dual illumination** unit **allows BMD detection** in Standard mode for **bare wafers**, **and** in Tilted mode for **patterned wafers**, while the two measurement modes show perfect correlation.

## Technology background

Since LSL is a sister development of the industry standard LST-2500HD system, LSL is dedicated to be the reference technique of BMD control on bare and patterned wafers as well. The scattering based signal is applicable for detecting voids and oxygen precipitates during failure analysis of product wafers.

## Applications

Two-in-one metrology providing the following measurement capabilities of Bulk Micro Defects inspection:

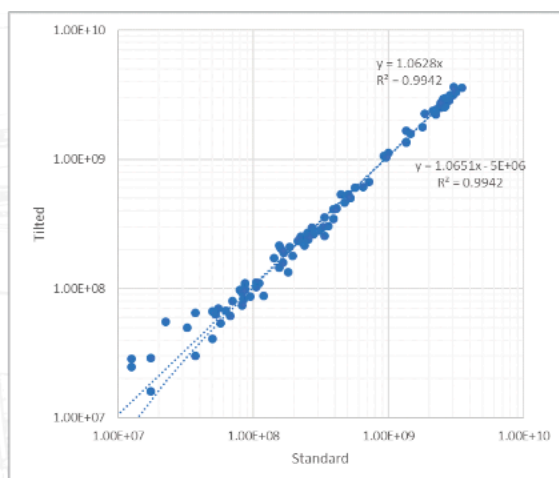
- **Standard Mode** (normal illumination/ LST mode)
- **Tilted Mode** (low angle illumination / patterned wafer inspection)
- **Combo Mode** (normal & low angle illumination / cross-correlation)



Bulk Micro Defects in Tilted Mode

## Benefits

- **Patterned wafer** measurement in tilted mode
- **Combo mode validation** by dual illumination
- Excellent reproducibility ( $1\sigma < 4\%$ ) allows the measurement of the size of the same individual defect before and after thermal treatment
- Outstanding stability and Tool-to-Tool matching
- Engineer-independent adjustment procedures



Density Correlation [cm<sup>-3</sup>]

## Features

- Automatic evaluation parallel with measurements
- IR laser light scattering
- Automatic loading of 6", 8", 12" half wafers, 12" quarter wafers
- Whole wafer diameter scan
- Lateral resolution 0.5  $\mu\text{m}$

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