YieldStar 375F

Description

The YieldStar S/T-375F is an ASML metrology system which allows measurement of on-product overlay and focus using diffraction based overlay (DBO) and diffraction based focus (DBF) techniques and metrology for scanner stability and matching control.

Key Features and Benefits

The YieldStar S/T-375F enables and supports the following applications:

- BaseLiner MMO (DBO)
- On-product overlay measurements for monitoring and APC (in conjunction with Overlay Optimizer), using 10x10 µm and 16x16 µm targets (µDBO)
- On-product focus measurements for monitoring and APC (in conjunction with Imaging Optimizer) using DBF and µDBF focus targets

Increased Sampling
The YieldStar S/T-375F provides increased sampling compared to the YieldStar S/T-350E, being 20% faster in wafer overhead time per measurement.

Accuracy and process robustness:
YieldStar S/T-375F enables continuous wavelengths in range of 425 nm to 880 nm without gap. Precision of central wavelength selection is 1 nm and bandwidth of wavelength is selectable from 10 to 30 nm. The continuous wavelength is expected to improve accuracy by choosing an optimal wavelength for measurement based on Holistic Metrology Qualification recipe qualification procedure. YieldStar S/T-375F has a feature of faster wavelength switching time, so that multi-wavelength acquisition move-acquire-measure (MAM) time is improved by 50% over YieldStar S/T-350E. This is expected to improve process robustness.

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