



Automatic Macro Inspection System

AMI-5600/3500/3000 MarkII



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The AMI makes both high throughput and exceptional detection sensitivity very achievable. It provides improved macro inspection accuracy, as well as greater inspection quantization and clarity, allowing more efficient process management.

Key Features

- Nikon's diffracted light detection system detects pattern variations along the Z-axis, especially focus error and poor coating, with high sensitivity. In addition, accurate recognition of the diffracted light only from the top pattern layer is possible, allowing defects in underlying patterns to be discriminated.
- New mirror tilting optics on AMI-5600 will contribute to the reduction of under layer noise.
- Detects particles (foreign materials) as small as 15 µm.
- The entire surface of a wafer can be captured in a single image, achieving high throughput of 170 wafers/hour.
- A unique learning function utilizes AI image processing technology to quantify the characteristics of a good wafer, obviating the need to retune recipes even for large process variations, and ensuring stable inspection results.
- The versatile automatic recipe creation function allows even inexperienced operators to create optimal recipes in a short time.
- In addition to the Automatic Defect Classification (ADC) function, operators can specify their own rework criteria in a recipe in order to automate rework judgments.
- Hole process inspections are also supported.

Specifications

- Enables 3x, 2x, 1x (AMI-5600 only) nanometer lithography
- Applicable for 3D Memory/LOGIC/CMOS image sensor devices
- Provided with pattern edge roughness (PER) function and mirror tilting optical system (AMI-5600 only)



WARNING

TO ENSURE CORRECT USAGE, READ MANUALS CAREFULLY BEFORE USING YOUR EQUIPMENT.

The export of this product is controlled by Japanese Foreign Exchange and Foreign Trade Law and International export control regime. It shall not be exported without authorization from the appropriate governmental authorities.

Performance and equipment are subject to change without any notice or obligation on the part of the manufacturer.

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<https://www.nikon.co.jp/pec/>

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