

E5610

Defect Review SEM supports next-generation photomasks



The E5610 is a MASK DR-SEM¹⁾ for reviewing and classifying ultra-small defects in photomask and blanks.

Utilizing Advantest's highly stable, full automatic image capture technology the E5610 easily imports defect location data from Mask Inspection System and automatically images the locations.

In addition, it features a newly developed $\mathrm{EDS}^{2)}$ module that performs elemental analysis.

With its high-accuracy, high-throughput defect review capability, the E5610 is expected to contribute to next-generation photomask production quality improvement and shorter manufacturing TAT.

1)Defect Review - Scanning Electron Microscope 2)Energy Dispersive X-ray Spectrometry

High Spatial Resolution

Advantest's proprietary column architecture delivers spatial resolution down to 2nm, even at the low acceleration voltages appropriate for photomask screening.

High Stable, Fully Automatic Image Capture

Even when operating at high SEM magnification, the E5610 performs stable, fully automatic defect imaging at a high rate of throughput, thanks to its high-accuracy stage, charge control function, and contamination reduction technology.

Compatible with Mask Inspection Systems

The E5610 is compatible with mainstream mask inspection systems: the tool imports defect location data and automatically images the locations identified.

Elemental Composition Analysis Option

The E5610 features an EDS module that performs elemental analysis - an advanced method of mapping mask blank defects.

MVM-SEM is either a registered trademark or a trademark of Advantest Corporation in Japan, the United States and other countries.

E5610 Key Specifications

Supported materials:	6025 size photomasks
SEM apatial resolution:	2nm
Stage position accuracy:	±75nm
Acceleration voltage:	0.3kV to 10kV
Probe current:	1pA to 1nA
EDS energy resolution*	138eV

^{*}Options. Please contact us for more information regarding the EDS module.



ADVANTEST

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