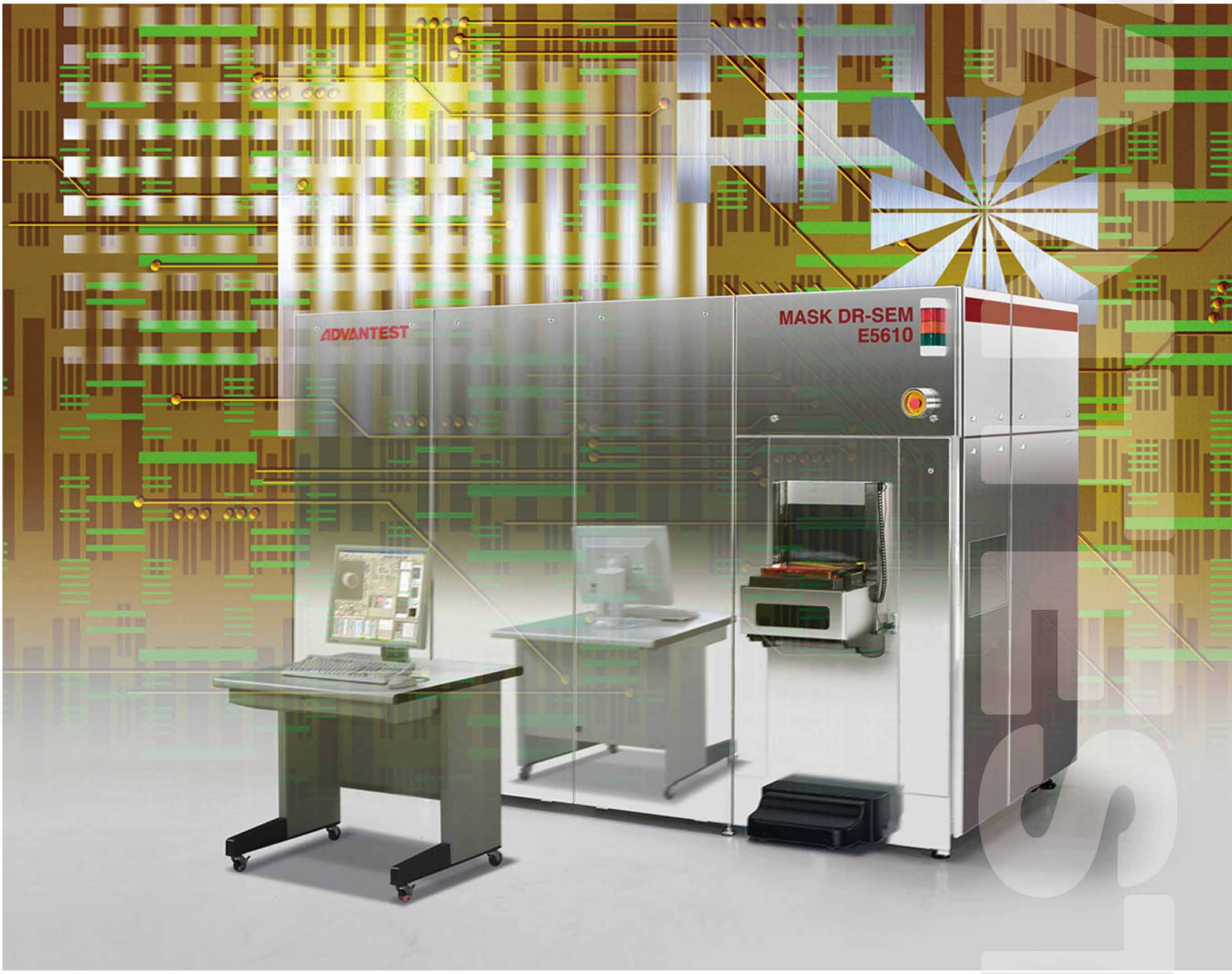
ADVANTEST®

MASK DR-SEM

E5610

Defect Review SEM supports next-generation photomasks



The E5610 is a MASK DR-SEM[1)] for reviewing and classifying ultra-small defects in photomask and blanks.
Inheriting the highly stable, full automatic image capture technology developed by Advantest for its acclaimed MVM-SEM®, the E5610 easily imports defect location data from Mask Inspection System and automatically images the locations.
In addition, it features a newly developed beam tilt mechanism that enables scanning at oblique angles, and an 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.

Tilt Observation Capability Option

The E5610 features a unique, electrically controlled tilt module that allows its beam to tilt by up to 15°, enabling users to perform observation of sidewall and etc.

Elemental Composition Analysis Option

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

E5610 Key Specifications

Supported materials:	**6025 size photomasks**
SEM apatial resolution:	**2nm**
Beam tilt degree*:	**Maximum 15°**
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 tilt module and EDS module.

Please refer to product manual for complete system specifications.
Specifications may change without notification.

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http://www.advantest.co.jp

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