

FEI Sirion Datasheet

Specimen Stage

X:	50 mm
Y:	50 mm
Z:	25 mm
Tilt:	-15 degree to +75 degree
Rotation:	0 to 360 degree
Reproducibility:	less than 3 μm
Drift:	less than 10 nm per minute after 4 minute stabilization
Stage map:	An X-Y control with a crosshair

Specimen Exchange Cycle

Process:	vent and open the chamber; unload/load a sample; pump down the chamber
Cycle Time:	less than 2.5 minutes

Detectors

- **Second Electron (SE)**

The SE detector, which is a scintillator type, uses secondary electrons generated by the primary beam to produce an image. It is mounted in the chamber over the sample. The SE detector doesn't operate in UHR mode.

When SE is selected, the Secondary Electron detector is activated and contrast and brightness adjusters control the SE detector parameters. The SE switches off during venting of the specimen chamber.

- **Through Lens Detector (TLD)**

The TLD detector, which is a scintillator type, uses secondary electrons generated by the primary beam to produce an image. It is mounted within the lens and therefore collects secondary electrons from immediately over the scanned area of the sample. The electrons have to pass through the lens pole piece into the collector, hence the name Through the Lens Detector. TLD operates in HR and UHR modes.

- **Charge-Coupled Detector (CCD)**

CCD is an infrared camera used to give a low magnification view of the inside of the chamber.

Lens Apertures

4 pieces 30 micron apertures and 1 pieces 50 micron aperture

Sirion and EDAX Datasheet

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