

JSM-IT700HR: Compact Field Emission SEM

JSM-IT700HR InTouchScope™

Introducing a new addition to our JEOL InTouchScope™ series SEMs, the JSM-IT700HR, a new compact FE SEM In-Lens Schottky gun.

Increase your productivity with our fully-integrated software, from specimen navigation to analysis and report creation.

This state-of-the-art SEM, with its high-brightness electron gun system with high probe current (~ 300nA), provides amazing high-resolution imaging along with high sensitivity and high spatial resolution analysis at even faster speeds.

- ✓ Zeromag and high-resolution imaging
- ✓ Instant Element analysis
- ✓ High speed mapping and long acquisition analyses
- ✓ Montage
- ✓ Integrated data management software: SMILE VIEW™ Lab



Specifications

Electron gun: In-Lens Schottky field emission electron gun

Accelerating voltage: 0.5 to 30 kV

Max probe current: ~ 300 nA

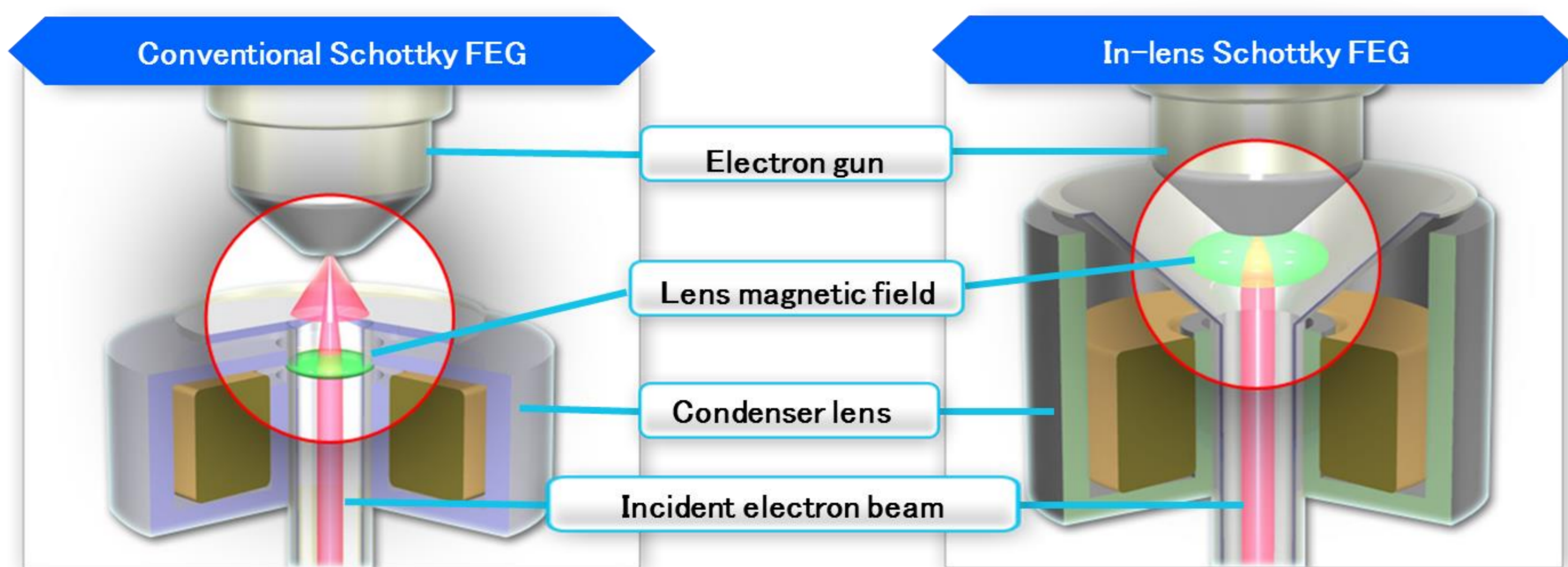
Magnification

- Direct magnification: × 5 to 600,000X
- Display magnification: × 14 to ~1,680,000X

Resolution 1 nm@ 20.0 kV

In-lens Schottky Plus FEG

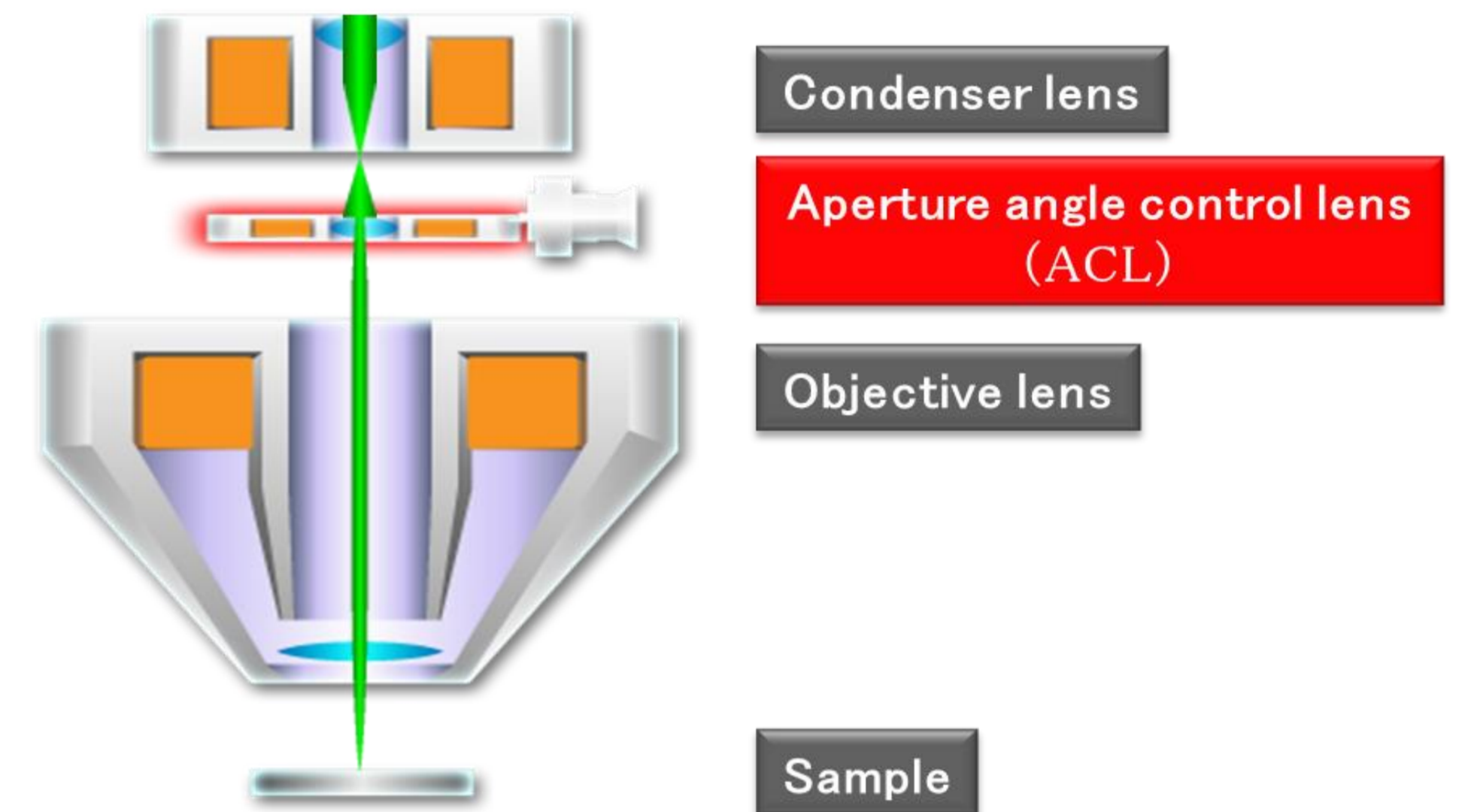
By integrating the electron gun and condenser lens, the electrons generated by the electron gun can be efficiently focused.



Aperture angle control lens (ACL)

The aperture angle control lens (ACL), located above the objective lens, automatically optimizes the aperture angle of objective lens over the whole current range.

Even when the probe current is increased, ACL suppresses the spread of the incident electrons for always maintaining a smallest probe.



Zeromag

Optical image is linked with SEM images for effortless navigation. Seamless transition between optical image to the live SEM image.



Large Analytical Chamber

- In-chamber stage is ideal for dealing with large, heavy, irregular shaped samples or multiple samples for high throughput analyses.

- Several Accessory Ports to Support a Variety of Attachments

- Supports Multiple EDS Detectors

- Co-planar EDS and EBSD, Perpendicular to Stage Tilt

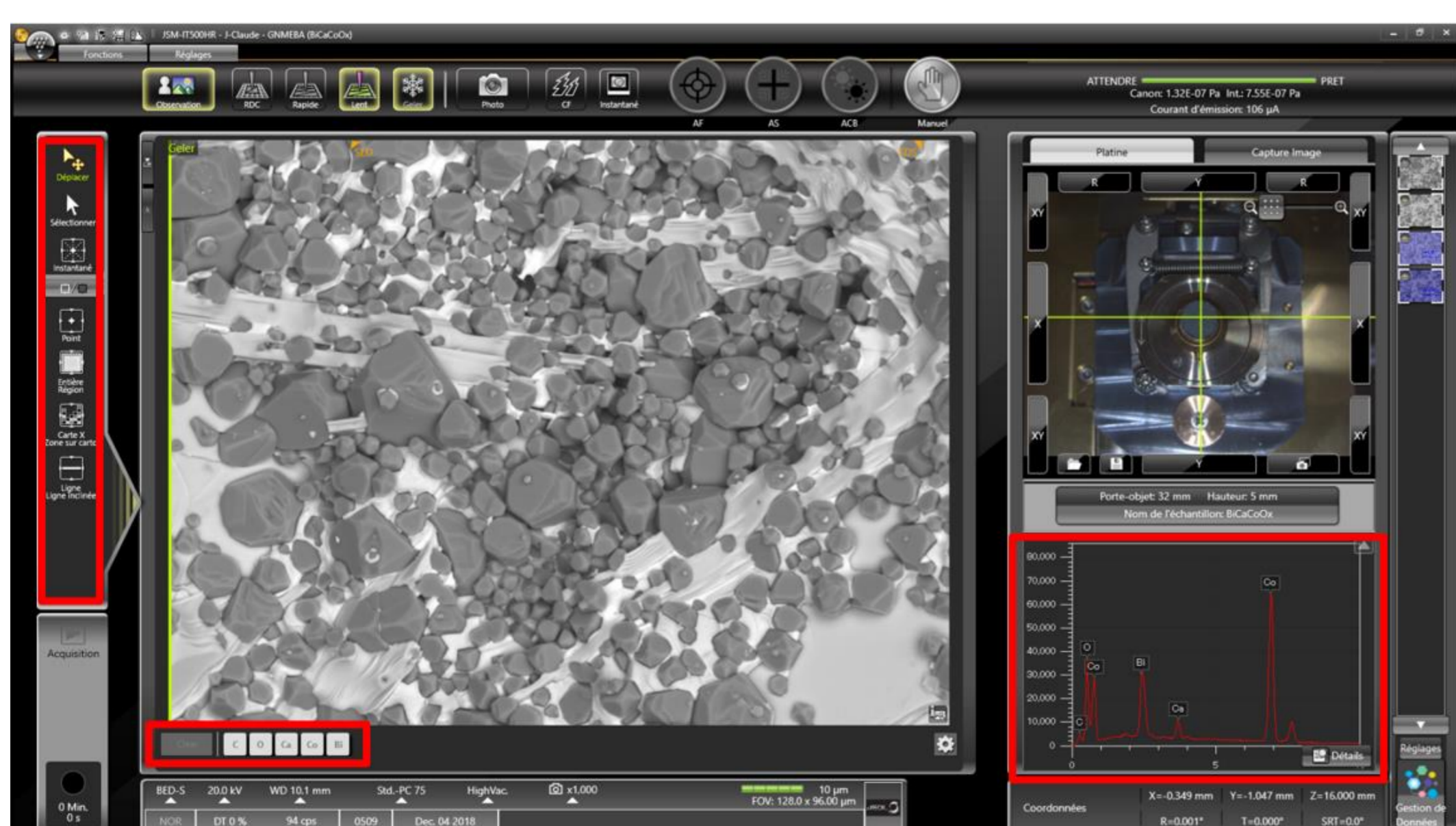
- EDS, EBSD and WDS all Performed at AWD=10mm

- In-Column Port for:
Probe Current Detector
Beam Blanking System for Lithography



JEOL EDS integration

Live Analysis – EDS in Real-Time during Navigation and Image Observation. Survey any Point with the Instant Function – EDS Spectrum Updates Automatically. Collect an EDS Map and Work with the Data as it is Acquiring.



Signal Depth Function

Displays depth of SE, BSE and characteristic X-ray generation calculated from the incident voltage.

Knowing the x-ray generation region provides a better understanding of the analysis region.

