

# JSM-6700 Field Emission Scanning Electron Microscope

## Description:

The JSM-6700F is a high resolution, easy-to-operate scanning electron microscope, based on a new cold field emission gun electron source and employing state-of-the-art computer control and imaging. A conical FE gun and semi-inlens objective generate high resolution images. High definition, flicker-free images are displayed at 1280\*1024 pixels and can easily be viewed under normal room lighting, even at slow scan speeds. A mouse and menu GUI interface, running under Windows 7, provides a familiar control interface and high performance networking.

## Specifications:

### Features & Info sheet:

- Resolution: 1.0nm (at 15kV), 2.2nm (at 1kV)
- Magnification: 25 to 19,000 (*LM mode*), 100 to 650,000 (SEM mode)
- Accelerating voltage: 0.5 to 30kV
- Specimen illumination current:  $10^{-13}A$  to  $2 \cdot 10^{-9}A$
- Electron gun: cold cathode field emission type
- Alignment: Electromagnetic deflection system
- Objective lens: Strongly excited conical lens
- Specimen chamber: Large chamber for 200mm specimen

### Modes of Operation:

1. Secondary electron (SE) mode with two JEOL detectors: Lower SE detector + In-Lens detector with voltage filter.
2. Backscattered Electron (BSE) mode with a retractable solid state BSE JEOL detector.
3. Element Analysis mode: VANTAGE X-ray microanalysis system of THERMONORAN provides element identification, quantitative microanalysis and mapping down beryllium.