Compare FE-SEM products

SU9000 / SU8700 / SU8600 / SU7000 / SU5000

HITACHI
Inspire the Next

Model	Ultra-high Resolution Scanning Electron Microscope SU9000II	Ultra-high Resolution Schottky Scanning Electron Microscope SU8700	Ultra-high Resolution Field-emission Scanning Electron Microscope SU8600	Ultra-High-Resolution Schottky Scanning Electron Microscope SU7000	Schottky Field Emissio Scanning Electron Microscope SU5000
Magnification	80 to 3,000,000 x (on photo)	20 to 2,000,000 x	20 to 2,000,000 x	20 to 2,000,000 x	10 to 600,000 x (on photo) 18 to 1,000,000 x (on display)
Resolution	0.34 nm at 30 kV (STEM)* 0.4 nm at 30 kV (SE) 1.0 nm at 1 kV (SE) 0.7 nm at 1 kV (SE/Deceleration mode)*	0.6 nm@15 kV (SE) 0.8 nm@1 kV (SE) 0.9 nm@0.3 kV (SE)	0.6 nm at 15 kV (SE) 0.7 nm at 1 kV (SE/Deceleration mode)	0.8 nm at 15 kV (SE) 0.9 nm at 1 kV (SE)	1.2 nm at 30 kV (SE) 3.0 nm at 1 kV (SE) 2.0 nm at 1 kV (SE with deceleration)* 1.6 nm at 1 kV (SE with EX deceleration)* 3.0 nm at 15 kV (BSE, variable pressure mode*)
Electron source	Cold cathode field emitter	ZrO / W Schottky emitter	Cold cathode field emitter	ZrO / W Schottky emitter	
Accelerating voltage	0.5 to 30 kV	0.1 to 30 kV	0.5 to 30 kV	0.1 to 30 kV	0.5 to 30 kV
Landing voltage	0.1 to 2 kV*	0.01 to 7 kV*	0.01 to 20 kV	0.01 to 7 kV*	0.1 to 20 kV*
Variable pressure	—	5 to 300 Pa*	—	5 to 300 Pa*	10 to 300 Pa*
Sample stage traverse	Side entry goniometer stage X : ±4.0 mm Y : ±2.0 mm Z : ±0.3 mm T : ±40°	5-axis motorized stage X : 0 to 110 mm Y : 0 to 110 mm Z : 1.5 to 40 mm T : -5 to 70° R : 360°		5-axis motorized stage X : 0 to 135 mm Y : 0 to 100 mm Z : 1.5 to 40 mm T : -5 to 70° R : 360°	5-axis motorized stage X : 0 to 100 mm Y : 0 to 50 mm Z : 3 to 65 mm T : -20 to 90° R : 360°
Maximum sample size	Bulk Holder : 5.0 mm x 9.5 mm Cross-section Holder : 2.0 mm x 6.5 mm	150 mm (in diameter)		200 mm (in diameter)	
Maximum sample thickness	Bulk Holder : 3.5 mm Cross-section Holder : 5.0 mm	36 mm (with holder)	36 mm (with holder)	80 mm (with holder)	
Signal detector	Secondary electron detector Top detector* BF/DF Duo-STEM detector* Energy dispersive X-ray detector*	Upper detector (UD) Lower detector (LD) Middle detector (MD)* Semiconductor type BSE detector (PD-BSED)* Ultra Variable-Pressure detector(UVD)* TE detector*	Upper detector (UD) (with SE/BSE signal mixing function) Lower detector (LD) Top detector (TD)* In-Column Middle detector (IMD)* Out-Column Crystal Type BSED (OCD)* Semiconductor type BSE detector (PD-BSED)* Cathodoluminescence detector (CLD)* TE detector*	Upper detector (UD) Middle detector (MD) Lower detector (LD) Semiconductor type BSE detector (PD-BSED)* Ultra Variable-Pressure Detector (UVD)* TE detector*	SE detector Top detector* Semiconductor type BSE detector (PD-BSED)* Ultra Variable pressure-Detector (UVD)* TE detector*
Analysis system	Energy Dispersive X-ray Spectrometer (EDS)* Electron Energy Loss Spectrometer (EELS)* Electron Diffraction*	Energy Dispersive X-ray Spectrometer (EDS)* Electron Backscatter Diffraction (EBSD)*	Energy Dispersive X-ray Spectrometer (EDS)* Electron Backscatter Diffraction (EBSD)*	Energy Dispersive X-ray Spectrometer (EDS)* Electron Backscatter Diffraction (EBSD)* Wavelength Dispersive X-ray Spectrometer (WDS)*	

*option

Copyright ©2022 Hitachi High-Tech Corporation All Rights Reserved.