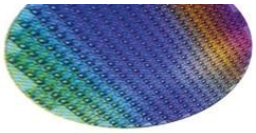

Electron scanning microscope for measurement of linear dimensions, type Hitachi S-9300	
Description	**Requirement**
Parameters	
Substrate diameter	200 mm
Resolution	Not more than 3nm (30A) by 0.8kV acceleration voltage
Magnification	1k to 300k
Repeatability of measurements	3nm (3 sigma)
Measurement range	0,1-2,0 um
SEM-image	1 to 300k
Productivity	35 wafers/hr
Data processing and saving	Fail data saving
Mode of measurement	Multifunctional
Other components with other set	
Double open Cassettes	Yes
Auto transfer of wafers from cassette – to chamber robot	Yes
Sensor of presence wafer into cassettes	If the cassette has no wafer at any selected slot and was selected to load, the robot arm vacuum sensor recognizes the absence of the wafer and an error message occurs to indicate that no wafer was found a that slot.
Robot system for moving wafer	Random access with use of 2 cassettes and more
Automatic loading and unloading	Automatic evacuation and automatic load/unload
Step position: feed back to linear scale	Through Laser feedback
Chiller	Yes
Electron optical system	
Electron Gun	Schottky emission source
Accelerating Voltage:	500V to 1600V, 10V steps, Probe current: 4~24pA
Electromagnetic Lens	3-Stage Electromagnetic Lens System with boosting voltage
Objective aperture	4-opening, click-stop, heated aperture is selectable/adjustable outside the vacuum
Scan Coil	2-Stage Electromagnetic Deflection
Magnification	1000X to > 300,000X
Wafer Imaging Ability	Entire Surface of 12 inch wafer
Resolution	3nm (800V)
Field of view: 1.2mm	
SECS/GEM communication interface	
Dual XY Hitachi Microscale	
DSP Image Processing	
BSE Mode Functionality	
Multipoint Measurement Function	
Edge Roughness Function	