

S-4700 TEMPLATE CONFIGURATION	
1-Supplier	
Name	HITACHI
2-Equipement Type	
Description	S-4700
3-Process	
Process type	FE-SEM
4-Wafer Type	
Wafer specification	-
5-Layout configuration	
Specific Layout defintion	Standard
6-CE Compliance	
7-Mainframe configuration	
Platform	
configuration	
Position 1	Body
Secondary electron resolution	<i>1.5nm guarantee (acceleration voltage 15kV, WD = 12mm)</i>
	<i>2.5nm guaranteed (acceleration voltage 1KV, WD = 2.5mm)</i>
magnification	<i>LM mode x 20 ~ x 2k</i>
	<i>HM mode x 100- x 500k</i>
Electro-optical system	
Electron gun	<i>Cold cathode field emission electron gun</i>
Acceleration voltage	<i>0.5-30kV (0.1kV step)</i>
Lens system	<i>3-stage electromagnetic lens reduction method</i>
Objective lens diaphragm	<i>Movable aperture (4 holes can be switched and finely adjusted from m outside the vacuum)</i>
Astigmatism correction coil	<i>8-pole electromagnetic system (X, Y)</i>
Scanning coil	<i>Two-stage electromagnetic deflection method</i>
Sample fine movement device	<i>Type II</i>
Stage control	<i>5-axis motor drive</i>
Range of movement	
X	<i>0-100mm</i>
Y	<i>0 to 50 mm</i>
Z (WD)	<i>2.5 to 30.0 mm</i>
T (tilt angle)	<i>-5-60 °</i>
R (angle of rotation)	<i>360 °</i>
Sample exchange size	<i>150mmφ (maximum)</i>
Detector	<i>: Secondary electron detector (Upper / Lower)</i>
	<i>(With noise removal function by beam monitor signal)</i>
	<i>Ultra-sensitive reflected electron detector</i>
	<i>Energy dispersive X-ray detector</i>
Scan mode	<i>Normal scan, selected area scan, line scan, photo scan,</i>

	<i>Spot position, average concentration distribution, dual mug / split, o</i>
PC	<i>Pentium 166MHz or higher</i>
	<i>Memory 32MB or more</i>
	<i>HD 2.4GB or more</i>
	<i>Microsoft Windows NT</i>
monitor	<i>For observation: 17-inch color CRT (1024x767 pixels)</i>
Signal processing	<i>Real-time image display</i>
	<i>Automatic image adjustment (brightness, contrast)</i>
	<i>Gamma control</i>
	<i>Derivative image display (contour enhancement)</i>
	<i>Inverted image display</i>
	<i>Autofocus (AFC)</i>
	<i>Auto stigma</i>
	<i>Memory photo (maximum 2560 x 1920 pixels)</i>
	<i>S / N improvement by averaging</i>
	<i>Image integration (maximum number of integrations 1024)</i>
	<i>Contrast conversion (memory image)</i>
	<i>Color display (two-color overlapping display and pseudo color)</i>
	<i>Beam blanking (when the image freezes)</i>
	<i>Raster rotation / tilt competition</i>
Scanning speed	<i>TV, slow 0.5-40s / frame: for observation</i>
Electrical field of view movement	<i>± 15 μm (when WD = 12 mm)</i>
Frame memory capacity	<i>TV, slow 0.5-40s / frame: for observation</i>
	<i>± 15 μm (when WD = 12 mm)</i>
	<i>640 x 480 pixel image: 11 screens</i>
Image display size	<i>1280 x 960 pixel image: 11 screens</i>
	<i>2560 x 1920 pixel image: 2 sides</i>
	<i>Standard (640 x 480 pixels x 1)</i>
Operating condition memory	<i>2 screen display (512 x 480 pixels x 2)</i>
Signal selection	<i>Full surface (1024 x 700 pixels)</i>
External control	<i>Can be registered</i>
	<i>SE (secondary electron) signal, X-ray signal, AUX signal (2 systems)</i>
Main special accessories	<i>DBC (Digital Beam Control)</i>
Detector related	
Pre-processing related	<i>YAG type reflected electron detector</i>
	<i>Energy Dispersive X-ray Analyzer (EX-200)</i>
	<i>E-1030 Mild sputtering equipment</i>
display	<i>(With evaporation unit)</i>
	<i>Multi-prep system</i>
	<i>DBC (Digital Beam Control)</i>
	<i>Ethernet network interface</i>
	<i>(LAN compatible, but does not include connection work)</i>

	Video amplifier unit
	Photomal power supply unit
9-Chemical Solution configuration	
10- Workstation hardware configuration	
11-System software/ automation configuration	
12-Electrical	
13-Ancillaries	
14- Hook-up connexion / Specific requirement	
15-Options	
17- Target process performances	

Broken parts : Detector used for EDS (EOL detector) (EDS specification) Aztec Live Standard Ultim40
 Detector:Ultim40(Resolution127eV@MnK α , 40mm² polymer window) Soft package Standard + Option(TruMap/
 AutoLock(drift correction)) Analyzer x4 PC(Windows10), 27 inch monitor Offline license Microsoft Office