Tool Configuration	Items	Description		Request Remark	Parts request (Overhaul/New)
Basic Information	Tool Type	**Hitachi S-9380II**			
	Configuration	Main Unit		Must	NA
		Display unit		Must	
		Power supply unit		Must	
		Load port 8" * 3 Port	**TDK * 3 Port (8") Open Type**	Must	
		Ion pump		Must	
		Turbo pump		Must	
		8" wafer holder		Must	
		Instruction Manual Set		Must	
		SE-gun Back-up Power Supply Unit		Must	
		Tube with Flange		Must	
		Earth quake restraint		Must	
		Multi-point Measurement		Must	
		Image Filing Function		Must	
		SEM condition Monitor		Must	
		ALP/STP Align Sample		Must	
		Vibration remove Stand		Must	
		GEM/HSMS Software		Must	
		Workstation Back-up Power Supply Unit		Must	
Performance requirements	General Specifications	Wafer size	200mm wafers	Must	NA
		Measurement method	Curser or line profile method	Must	
		Measurement range	50nm ~ 2μm	Must	
		Measurement repeatability	±1% or 2nm (3σ)	Must	
		Throughput	55 wph (5 point)	Must	
		Secondary electron image resolution	2nm (Vacc: 0.8kV, 300kx, High-Reso. Mode)	Must	
		Image magnification	1000 ~ 300kx	Must	
	Electron Optics System	Electron gun	Schottky emission type	Must	NEW
		Accelerating voltage	300 ~ 1,600V (10V step variable)	Must	
		Lens system	Electromagnetic convergent lens system, booster objective lens.	Must	
		Secondary electron detection method	Secondary electron switching detection method by scintillater/photomultiplier detector using the EXB filter	Must	
		Objective lens aperture	Heating type movable aperture (4 hole changeable from outside vacuum) with fine adjustment.	Must	NEW
		Scanning method	2 stage electromagnetic method	Must	
		Astigmatism correction method	8 polar electromagnetic method (X and Y axis)	Must	
		Probe current monitor	Automatic measurement function with Faraday cup	Must	
		Optical microscope	1.2mm sq. view black/white CCD camera (x 110)	Must	
	Stage	Movement range	X, Y: 0 ~ 300mm	Must	
		Driving method	Pulse motor	Must	
		Control/speed	Positioning control using a linear encoder Maximum speed: 200mm/s	Must	
	Loader	Transport from cassette to loader chamber	Automatic transfer using wafer transfer robot	Must	
		Transport from loader chamber to stage	Automatic loading after automatic evacuation	Must	
	Wafer Transfer	Wafer detection inside cassette	Automatic detection using mapping sensor attached to FOUP opener	Must	
		Chucking method	Vacuum chucking of wafer back	Must	
		Orientation flat/V notch detection	Non-contact automatic detection method using optical sensor	Must	
	Control and Display System	Observation control CRT	EWS 18" LCD	Must	
		Scan mode	TV scan, Slow scan	Must	
		Image processing	Software process using filtering	Must	
		Safety device	Mushroom type EMO Switch	Must	
Software & Workstation	OS	Unix		Must	
	Software	**Ver.22**		Must	
	Workstation	B2600		Must	
	Hardisk	72G X1 (HDD type:SCSI)		Must	
Performance Tset	Secondary Electron Image Resolution		2nm, Vacc:800V, M:300K	Must	
	Static Measurement Repeatability		≤2 nm (3δ) or ±1%,whichever larger.	Must	
	Throughput		55 wafers/hour or more (5 point).	Must	
	Stage Stopping Position Accuracy		The deviation should be ≤ ±1μm.	Must	
	Ultimate Vacuum Measurements		5 x 10-5 P a	Must	

Extra promote item	SPM(Surface Potential Measurement) Set	Test wafer static electricity for improve SEM auto focus	NA	OPTION
	CLP Sample	For supporting daily measurements QC-wafer value test	NA	OPTION
	Triple HDD system (HDD type: SATA)	Backup system parameter and recipe	NA	OPTION
	Data station	For remote create and modify recipe	NA	OPTION
	T-PC	Catch measurements data and SEM image to office Excel software	NA	OPTION

Environmental Conditions	Magnetic field			
	Power synchronous component (AC magnetic field): 0.3μT or less		Must	
	Power asynchronous component (DC magnetic field): 0.1μT or less		Must	
	Vibration			
	Horizontal Directi	Vertical Direction		
	1Hz: 3μm P-P or less	1Hz: 20μm P-P or less	Must	
	2Hz: 1.3μm P-P or less	2Hz: 8μm P-P or less	Must	
	3Hz: 0.7μm P-P or less	3Hz: 3.4μm P-P or less	Must	
	3.5Hz: 0.6μm P-P or less	4Hz: 1.3μm P-P or less	Must	
	4Hz: 0.7μm P-P or less	5Hz: 0.9μm P-P or less	Must	
	5Hz: 0.75μm P-P or less	6Hz: 0.9μm P-P or less	Must	
	6Hz: 0.9μm P-P or less	6.5Hz: 0.8μm P-P or less	Must	
	7Hz: 0.9μm P-P or less	7Hz: 1.1μm P-P or less	Must	
	8Hz: 1μm P-P or less	8Hz: 1.4μm P-P or less	Must	
	10Hz: 1.1μm P-P or less	10Hz: 2.5μm P-P or less	Must	
	Noise	75dB (C characteristic) or less	Must	
	Room temperatur	20 ~ 25°C (Δt = ±2°C)	Must	
	Humidity	60% or less	Must	
	Utility			
	Power	Single phase 200/208/230V AC (60 Hz), 6kVA		
	Grounding	100Ω or less (Single)		
	Nitrogen	500 ~ 680kPa [Gauge pressure] (for leaks)		
	Dry air	600 ~ 880kPa [Gauge pressure] (for valve motor)		
	Vacuum	-80Pa or less [Gauge pressure] (for mini-environment)		
	Circulation cooling water	98.1 ~ 196kPa [Absolute pressure] (for cooling lens column)		

Service	5 days *8 hours (Normal Time)	Arrive VIS no latter than 4 hours	Must	
	Warranty (Parts & Labor)	6 Months After Final Acceptance	Must	
	Company Performance	Taiwan Semiconductor Customer CDSEM Experience	Must	